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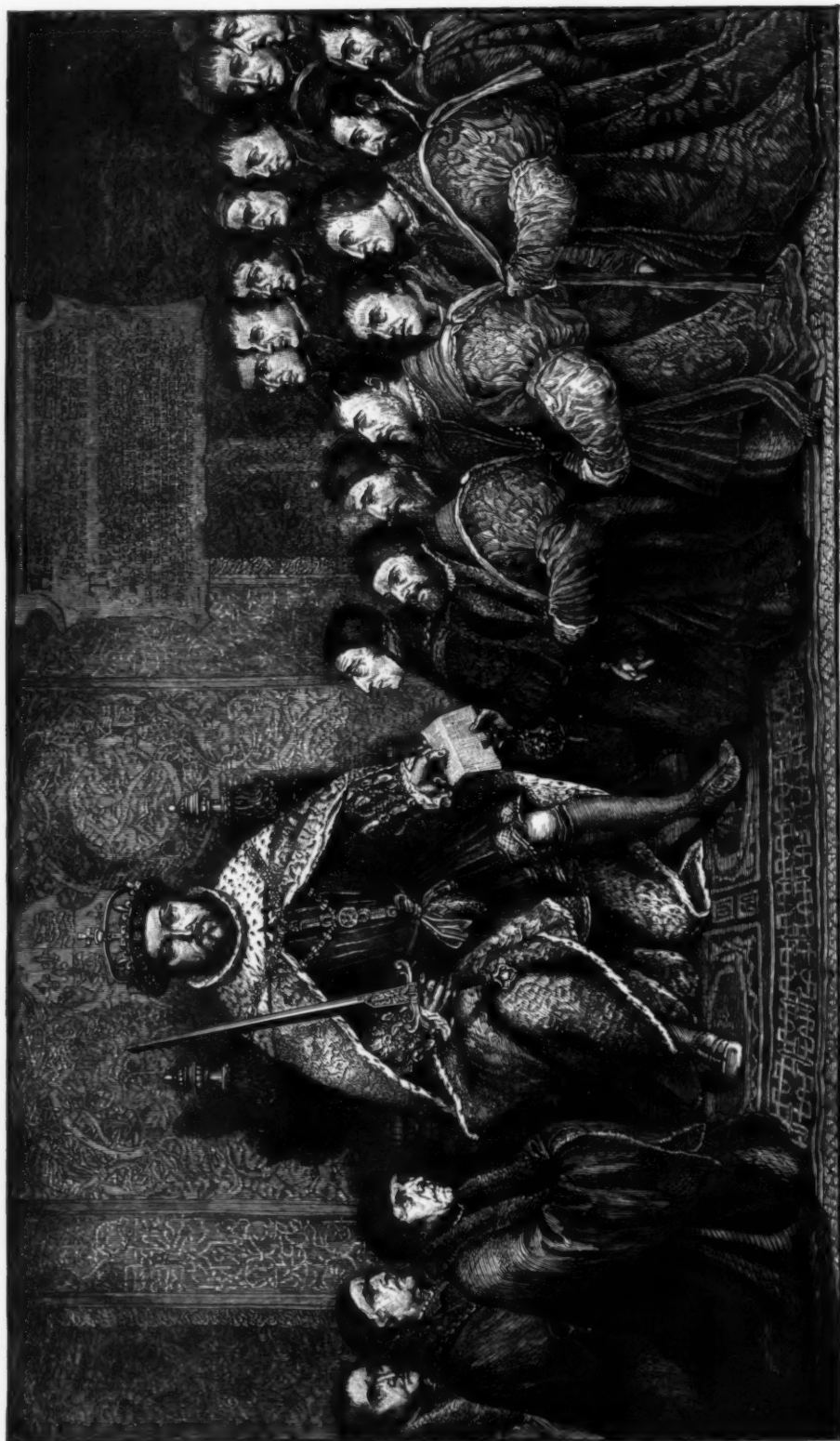
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THE BARBER SURGEONS' HOLREIN.

THE VICAR OF MOOR EDGE.

BY MRS. H. COGHILL.



HER VERY SOUL WAS PROSTRATE, BUT THERE WAS NO RESPONSE.

CHAPTER I.—AN UNHAPPY PAIR.

"PARSON has nowt to do with my affairs. Old Parson 'as taught me my catechiz himself, and married her and me, worse luck! he never melled with me, and new one shanna. Let him get a wife himself and manage her, and then happen we might let him talk."

There was a pause broken by whiffs of tobacco after this speech, and not a sound could be heard except now and then a heavy footstep, or the click of earthenware from the kitchen where the mistress of "Johnson's" was washing up her tea-things. The two men sat on a bench under the elm-tree in front of the house. Big mugs of home-brewed beer stood before them, but neither that nor the pleasantness of the evening brought any cheerfulness to their faces. Robert Clay growled out those words about the Vicar with a heavy frown on his face. And George Lane, prim and respectable in his everyday pepper-and-salt suit, sat by him and listened to them with an air of restrained disapproval. Parson, he thought to himself, was certainly one of those set in authority over us—particularly set in authority over him, the parish Clerk—but then Robert Clay was a substantial farmer owning his land, and his mother had been a Dissenter, so there was something to be said for his independence. The question in debate, too,

was a difficult one, and George Lane was able to make some allowance for the aggravatingness of women, having, unlike the Parson, been rash enough in his youth to try the experiment of managing a wife of his own. She was dead long ago, and his existence since her departure had been peaceful. Still he did not like Clay's intended action. "The Parson said it was unlawful—and at any rate it was a strong step.

"Give her a hiding, Bob," he said in his solemn tones. "You canna tell what a woman may do, that's true enough; but I reckon your wife's no worse than the rest of 'em at heart, and you're a good bit to blame yourself. Many's the time I've heard you trying to make her take a drop more nor she wanted. You'd say, 'Come, wench; take a sup of ale and be neighbourly,' when she'd no thought of touching it. And so I say you're bound to take all ways with her. Just you talk sensible to her, and, if needs must, give her a hiding, and see what that'll do."

"A hiding?" Clay answered with a laugh of derision. "Dost think I've never tried that? Why, George, you *are* a softy! When I found talking did no good—and that's a fine time ago—I took other ways. I've broke two good whips over her. That's the use a hiding is."

"Man! Two whips! Eh, poor Molly! Well, well, Bob, take your own way. But as nice a girl,

and as comely, she was as any in our parish and the two next—and to see her now!"

"And you think I'm to blame?" Clay went on grumbling. "Can't a man bid his wife take a sup of his ale and make herself pleasant to him and his friends without teaching her to get drunk? Can't a man enjoy himself like a man, and the woman be content with her tea and her gossips? Did I ever grudge her anything in reason? Or, if she must drink, can't she drink in reason and keep her house and her maids in order? Does my wife do that?"

"No, Bob, no," Lane answered in a melancholy tone. "It's too true she's gone queer altogether of late days—gone queer altogether she is. I met her to-day, and the clothes on her, though they were good enough clothes in themselves, they hung on her so they didn't fare to be worth sixpence; and she that wan and miserable-looking. But why are you so set agen the Parson talking to her? You know he says you're bound to keep her and try to mend her. Why not let him try to put her in mind of her duty? There's no harm it could do, and it might do good."

"Good's over for her and me," Clay answered sullenly, "and no more talking—neither yours nor Parson's—will mend matters. We've been at a many fairs together, her and me, and we'll be there to-morrow; but to-night is the last night her and me will spend under one roof."

"Eh, Bob, that's an awful thing to say," Lane began. But Clay interrupted him.

"Let be, George, you've said enough. You can tell the Parson you spoke for her."

He got up from the bench and went into the small alehouse to pay for what he had had. Then coming out, he passed Lane with a nod, by way of "Good-night," and strode away along the country road.

"And there," said Lane to himself, "is Parson coming across the field from Moor Farm, and they'll meet this side the stile."

He sat upright, neglecting his unfinished mug of beer to watch the approach to each other, and the meeting, of the two men. Robert Clay went swinging along the road, a stalwart and comely figure, though too stout for his thirty-five years. He was extremely tall, over six feet; and so well and strongly knit that it was commonly said in the parish that he "could knock down a horse with a blow of his fist."

His dress was very much that of the usual representations of John Bull—a low crowned hat, a blue coat with brass buttons, cord breeches, and boots—and though it was pretty well worn, and lacked the smartness of a Sunday suit, it was not the dress of a poor man. A certain masterfulness in his gait, and especially in the way he carried his head, indicated that he had no small opinion of himself, and as he was now in anything but a good-humour the long spud he carried instead of a walking-stick went plunging about in a rather dangerous-looking manner.

On the other side of the fence, coming along a footpath that joined the country road at a right angle, was a man of very different aspect. The Reverend John Laurence was by no means so

familiar a figure in Moor Edge as Robert Clay. He had been but a year Vicar of the parish, and it took a long while for the rural mind to get used to a new comer; especially when that new comer had the extra halo of strangeness about him, which belonged to his Sunday appearance in surplice or gown and hood. But George Lane, being parish clerk, was naturally well acquainted with the Vicar's looks, and he thought he could tell now that "Parson" was in a troubled mood. He was a man of middle height and well built, compact in figure, and alert of movement. He did not look more than forty, though his hair was grey about the temples, and his face pale and worn. It was indeed the face of a student who had spent much time among his books, and also of one who had suffered sharp sorrow. The scholarship and the sorrow were equally unsuspected at Moor Edge, but something which perhaps had to do with both made him as much respected and liked there as any man could hope to be in so short a time; and George Lane, as he watched for the encounter between him and the farmer, could not help saying to himself, "Eh, 'tis a pity. If only Bob would listen to him! But he never will."

The two men, hidden from each other by the tall thorn hedge, were quite near before either of them became aware of the other's approach. Suddenly the Vicar, crossing the stile into the lane with more vigour and quickness than would have been shown by most of his parishioners, found himself face to face with the farmer. He checked himself with a manifest desire to speak, and Clay, with a frown, and still swinging his spud, was forced to do the same.

"Good evening, Mr. Clay," the Parson began as pleasantly as he could. "You see I am coming from your house. I was sorry not to find you at home."

"I'm not much at home in the daylight," Clay answered. "Them that the land keeps must keep to the land, and it's my fashion to look to my farm." He seemed to have forgotten that he had spent the last hour drinking beer at Johnson's, and the Vicar probably did not know it. At all events the purpose of the latter at this moment was to pacify.

"I know you are a busy man," he said civilly. "But since I did not find you at home I should like to say a few words to you here."

"Well, sir," Clay answered with no more responsive civility than was barely conveyed by his words, "if you have any business of your own to speak to me about I'm very willing to hear it."

"I have," the Vicar replied gravely. "It is my business to tell you that if what I hear of your intentions with regard to your wife is true, you are in danger of breaking the laws of God and man. It is my business to beg of you most earnestly to give up the thought of committing this great sin."

"No business of yours, Parson, at all," Clay answered grimly. "You didn't even marry us, and if old Parson Greenway as did were alive now, I suppose he'd say he could not unmarry us, much less you. She won't be the first woman as has changed her master, I reckon. And I'm bound to

be rid of her. Sin or no sin—but I don't hold it's a sin, you mind—I mean to get out of the hell she's made for me. And if there's no way but one to do it, why I'll take that one."

"There is another way," the Vicar cried, and seeing that Clay was trying to pass him he stepped back to the stile and stood in front of it, opposing his slight, close-knit figure to the other's huge, unwieldy strength. "There is the way of repentance and forgiveness. You speak of a hell—do you think you are the only one that suffers? Or that she is the only one that is wrong? Your wife is as unhappy as yourself—much more unhappy. She is so heart-broken and spirit-broken that a kind word from you would be everything to her—it would give her courage to be what she used to be. Have pity on her and your child—go home and tell her you will try a little longer. She has promised never to touch drink again—do you promise?"

"I'll promise her and you this one thing, and no other," Clay broke in brutally. "As you're so sweet on her, you'd better take her and manage her yourself, for the one thing I'll promise—and that I swear by any oath you like—is, that as long as you live you'll never see her in my house again after to-day. *Never*, do you hear? And so good-night to your Reverence."

He moved on a swinging stride or two down the lane, climbed the bank at a point where the hedge was weak, and in a moment had crashed through it and was crossing the field towards his own house, leaving the Vicar in possession of the stile.

"Poor woman!"—this was all it occurred to Mr. Laurence to say when Clay had vanished. He himself had been ungratefully and insolently treated, but of this he was hardly conscious. That unhappy, most erring, and now most helpless member of his flock filled his mind as, slowly and sadly ready to blame himself for being a clumsy mediator, and equally ready to try again if any other way could be found, he turned away towards the village.

George watched the parting as he had watched the meeting. He was perhaps the only one of the three who could have told afterwards what an exquisite evening had been witness to the scene; how peacefully the long shadows of tall elms and bushy oaks had crept across the meadows; and how busy and talkative the rooks had been in their great rookery behind the farm. Over all was the calm and sweetness of coming rest: the first star, golden in the yet daylight sky, shone straight upon Robert Clay as he went homewards, but he neither saw the star nor felt the soft influence of the sweet country quiet. He went over the rich meadow with heavy steps, striking his spud upon the ground now and then, and keeping nearly parallel to the footpath until it ended at a small garden wicket. Then he turned abruptly to the left, and skirting the garden hedge made for the adjoining farmyard and began an inspection of stables, cow-houses, and all the appurtenances of his business.

As he skirted the garden a woman looked out at him from a window of the house. It was a wide lattice window divided into three compartments,

the middle one of which stood open; and within the open part the woman who had been for eight years mistress of Moor Farm sat huddled in a high-backed chair and looked out at her husband with despairing eyes. A little girl of five sat on the ground at her feet, her sturdy legs stretched out, and her fair, tangled curls rubbing against her mother's knee, while she tossed and fondled a wooden doll; but the woman kept her face turned to the window, and her thin hands grasped the arms of her chair with a nervous clutch.

The room in which she sat was a fair-sized, low-ceiled, and very comfortable parlour, communicating by a door with the big farmhouse kitchen. At the farther end from this door was a wide fireplace within whose ample bars there stood a big jar filled with flowers—a "beaupot" the sweetness of which floated through the place, while its colour was reflected in the broad flat top of a fender of polished iron. On one side of the fireplace was a deep press sunk in the wall; on the other, a mahogany corner cupboard, the glass doors of which showed a gay array of china within. There was a big table, dark and shining, in the middle of the room; one or two other tables, and a brightly covered hard-cushioned sofa; finally the two big, high-backed chairs in one of which Mrs. Clay sat. It was altogether a room whose contents spoke of two or three generations of well-to-do owners; it was a cheerful room, too, by nature, well lighted and airy—a locality as little suggestive as anything could be of that "hell" of which the farmer had spoken. And if the woman by the window had so lived as to make of these commonplace, comfortable surroundings a region of misery, it was clear that she herself was the centre and focus of all the wretchedness.

"As nice a girl, and as comely, as any in the parish," she had been, according to George Lane, and there were still about her some faint reminders of former beauty. Her eyes were dark, and shaded by beautiful curving lashes, her head well set on finely shaped shoulders. But her hair, plainly twisted up under a thick white cap, was streaked and flecked with grey, and had a lustreless, wispy look very ugly to see; some of her teeth were gone, and her lips so colourless and flaccid that her mouth seemed shapeless. Her cheeks, which should have been as round and almost as rosy as her child's, were pallid, and hung loosely over her jaws; under her eyes were tints of purple on sunken flesh, and the skin of her face and throat was like that of a woman twenty years older than she really was. But much more than the loss of tint and shape was the expression of her face—a look of such utter, hopeless wretchedness, such helpless prostration of body and soul, as was more tragic in its stillness than any utterance of human tongue could be. She sat shrinking forward a little, almost as if she expected a blow—even when her husband passed the window she did not move, except her eyes, which followed him with a half-dazed look—and there it seemed as if she would sit with no desire to move until some one from outside should disturb her.

The Vicar had been with her for a long time that evening, and left her in a less passive mood, but

when he was gone a horror of her loneliness and a still greater horror of the future had crept over her; and she had let her child slip down from her knee and gradually shrunk into her present attitude. She knew in the depths of her heart that her doom was sealed; and though she had raged against her husband first, and afterwards consented to plead to him, yet she had really no hope of escaping the sentence pronounced against her, nor even any fixed intention of resisting it.

After a time of contented playing with her doll the child got up and went away with it to the other side of the room. She was a pretty little creature, a perfect specimen of rural health and beauty, with light brown curls, ruddy cheeks, and blue eyes—all inherited from her father. She was well used to amusing herself, and talked away to her doll, while she put it to bed on the sofa, in a cheerful little voice that never disturbed her mother's sombre silence. Once or twice Mrs. Clay moved her head drearily from one side of the great chair to the other—once or twice a shudder passed over her—but otherwise she remained still and as if unconscious of little Betty's presence, till at last the child, having hushed her doll to sleep, made a swift rush across the room and flung herself with outspread arms upon her.

Then she started into life, and lifted the little one upon her knee, kissed the rosy cheeks and lips and the tangled curls, and held the child tight in her arms in a way Betty did not altogether approve of.

"Don't, mammy!" she cried, half laughing and half inclined to cry. "Let me go! You squeeze too hard!" But already the mother's mood had changed again. She kissed the child once more gently and almost indifferently; then she put her down on the floor, and, rising, began to walk about the room. She noticed that the red tablecloth on the side table was awry, and stopped to put it straight; she picked up some dead petals that had fallen from the beaput, and put them out of the window. As she kept moving about she found herself opposite the cupboard in the wall; as if by instinct she stopped and felt in her pocket for a key; but the moment she had grasped it she had thrust it back again, and, clasping her hands together, went away hurriedly to the other end of the room.

Suddenly she stood still listening. Her husband had entered the house, and she could hear his voice in the kitchen speaking to a servant. While she listened the parlour door opened, and a woman came in, carrying a tray of supper things, which she set down and began to arrange. There was a small basin of bread-and-milk for Betty, and Mrs. Clay put the child on a high chair and, giving her a spoon, watched while she ate. Betty was hungry, and the bread-and-milk vanished quickly; the cold bacon, bread and cheese, and ale had only just been arranged on the table when her basin was empty. Her mother kissed her as she lifted her down. "Now," she said, "go and say good-night to father, and Sally will take you to bed."

As the parlour door opened to let Betty out Robert Clay appeared at it. He kissed the child in passing, and then, coming into the room, closed

the door heavily behind him. He never looked at his wife, but went straight to the table, cut himself a slice of bacon and another of bread, poured out a big mug of ale, and, sitting down, began to eat. She also cut herself some bread and a morsel of cheese, and, taking her place opposite to him, made some pretence of supper. But her throat was dry, and her heart beating in great heavy thumps; she could swallow nothing, nor, for the moment, could she speak one of the words which were so ready an hour ago.

The meal went on—not long in reality, yet seeming to both the silent pair of interminable length. At last, however, it was over. Clay had eaten a substantial quantity; his wife had swallowed an inch or so of bread and crumbled the rest; he had had a glass or two of ale, and she a long draught of water. He got up from the table and went to fetch the small week-old newspaper that had been laid away in a corner, opening the door as he passed it, and shouting to Sally to fetch the tray. Then, as the supper was removed, he drew the flaring candles near to him, and, turning his shoulder to the table, set himself determinately to read the news.

His wife sat still in her place. Once or twice she looked at him as if she were going to speak, but her parted lips closed without a sound, and, leaning her elbows on the table, she rested her forehead on her hands. Yet she felt that it must be done—she had promised the Vicar, and she meant to do it. But the Vicar had said that he would surely listen to her, and his attitude now was so hopelessly unlike listening. She had been crushed that afternoon; the Vicar's kindness had softened her heart to its very core, so that anger had lost itself in repentance. But now, as she looked at that obdurate figure facing her, there was a little flame of bitterness beginning to flicker and sting in her bosom. Yet she was determined to speak, and to speak humbly. "Robert," she said at last, "I have a word or two I want to say to you."

Her voice was husky and unsteady. He did not turn his head, or lift his eyes from the paper, but he grunted out a half-articulate "Well?"

"Let me try again," she said. "Let me stay. I said I would go, but I can't leave the little one. And I'm sorry—and I'll promise to drink no more."

The phrases came in gasps, her hands gripping each other hard, and her forehead growing moist with the struggle to speak them. But he neither answered nor moved. Only when she stopped he gave a short, jeering laugh, and she half rose from her chair with an angry sparkle in her eyes.

He turned his paper, and she quieted herself and went on. "It's eight years," she said, "since I came here, and for four years we were right happy and comfortable. Why should not the good days come again? See, Robert, I'll swear, if you like, that as long as I live I'll touch nought but water. Will you make a bargain—for the child's sake?"

She stretched her hands towards him. "Speak!" she said.

"Ay!" he cried, suddenly turning towards her, and dashing down the newspaper with a bang. "I'll speak, you chattering, worthless jade! Why,

it's as much for the child's sake as my own that I mean to get rid of you. Do you remember how, three days ago, I found you lying drunk on the floor and the child asleep beside you? You shall go, and if I had to keep you she should go. No child of mine shall be reared up by a drunken good-for-nothing!"

"Child of yours!" she cried as fiercely as he had spoken. "Is she more your child than mine? Do you think I'll give her up? You may kill me—no," and she quieted herself again with a last desperate effort of sorrow and patience. "No, Robert, I don't mean that. I mean, think of what you are doing. The child has nobody but you and me—no grandmother, no aunt, nor anybody that cares for her. What can a man do for a little thing like that?"

"Never your mind," he answered; "she won't be your business."

"Oh think," she went on. "If you've been wretched, I've been more. Look at me. I'm not thirty years old yet, and I'm more like fifty. It's not been all my own fault, as you know very well, but I'm ready to take all the blame—only don't—don't try to part me and—"

Her head sunk on her hands and her body shook with sobs; her very soul was prostrate in supplication. But there was no response. He let her weep, never looking at her after the first moment, but seeming still to read his paper. Only when she grew quiet he said, with a sort of stolid brutality:

"Spare thy breath, lass. What I've said that I'll do. I suppose a man's wife is his goods, isn't she? A precious bad bargain you've been to me, and talking won't mend it. You're a fool, too, for you know well enough there's nought will keep you from the brandy bottle, and I'm giving you a chance for plenty of it. Go to bed and hold your tongue."

She got up as if to obey him, but instead of going towards the door walked round deliberately and stood in front of him. Her eyes burned with a sullen light and her cheeks were flushed; a little of her old beauty had come back to her, but it was fierce and ill to look at.

"If this is the last word then," she said, speaking quietly, though her voice rose as she went on, "I'll say what I think and not what the Parson bade me. It is you, Robert Clay, that have made me a bad bargain—you with your drinking every day and your drunken company coming about the house. Do you think a decent woman could live with you? And what do you think will become of the child? Won't she follow her drunken father and her drunken mother? And it will be you—you—you that has done it! Drive me out of your house, and the curse will stay behind. Now do what you like!"

He sprang from his seat and struck her. At the touch of his heavy fist she fell, and there was a dead silence in the room. He stood looking at her huddled on the floor, and his fist was still clenched as if he would have struck again if it had not been so manifestly useless. Then he remembered that this time she was certainly sober, and he wondered at her stillness. Was she shamming to save herself further punishment? Very likely—at any rate he was not going to pick her up. It

was about bedtime with a busy day to-morrow, so he blew out one candle, set the kitchen door wide open, called out, "Sally, come and look to the missis," and went creakingly up the oak stairs to his bedroom.

CHAPTER II.—THE FAIR.

L YING on the high ground towards the Derbyshire border, high enough to be breezy, but not so high as to be bleak, Moor Edge is one of the prettiest of Midland villages. In these days its fine Gothic church draws visitors from a distance, and gives scope to much talking on the part of local archæologists; but in the days when Mr. Laurence was Vicar no one ever thought of pilgrimages—the old ones had gone out of fashion, and the modern ones had not been invented. Yet the parishioners had a vague sense of the beauty of their church, and especially were proud of the ancient sweet-toned bells with their quaint inscriptions; the life of the village clustered round the building; its triple line of roofs and lovely spire looked down on the village green and the houses on either side, and on the highway, once traversed by Roman legions, where such small stream of traffic as existed was bound to pass. From the low stone wall of the churchyard the green sloped gradually to the road. Perhaps long ago the whole square had been nearly flat, for though the open grassy space now inclined gently till it reached the lowest point, the two rows of houses hemming it in did not follow its incline, but kept themselves up on nearly the height of the churchyard, while, to make up for their elevation above the green, those of them that were nearest the road were approached by a pebbly causeway and various steps of rough stone. Almost all the year this heart of the village was sluggish enough: in the middle of the day the boys and girls played under some beautiful elms that were scattered about the upper part; in the evenings their elders loitered and gossiped there. But there was no stir of business or pleasure there except twice a year. In early summer a large cattle fair gathered the neighbourhood together, and in autumn the parish wake brought an equal crowd for more frivolous purposes. Perhaps the reason Robert Clay and George Lane had chosen to take their beer at Johnson's—which was but an out-of-the-way alehouse on the road to Moor Farm—was to avoid the noisy and dusty preparations making on Church Green for the business of the following morning. At any rate, the morning of the fair rose upon a scene of no little crowding and vociferation under the elms and all over the grassy slope below them. The whole space was now covered at the upper end with booths, at the lower with rough pens full of sheep, horses, and all varieties of the domestic cow. Here innocent and foolish calves were staggering about on their spindle legs; there stood groups of sturdy, wise oxen, too philosophical perhaps to care who would next wield the sharp goad over their solid flanks. Around and among this four-legged crowd was another crowd of bipeds—smart cattle dealers and horse dealers from distant places, rough drovers,

and the slow-moving and white-smocked labourers of the district, with a sprinkling of the neighbouring farmers and a small proportion of women. At this early period of the day the women were chiefly those belonging to the booths; business was in full swing, but pleasure, and those who came in search of it, would be found later.

The animals had many of them been on the ground since the night before; many more had arrived by five o'clock in the morning; and by nine much buying and selling had been done, and some of the overcrowded pens were already emptying. As the pens emptied the beershops filled; there was one on each side of the Church Green, and at both of these breakfast was laid on long green tables outside the windows as well as within. Great hams, masses of cold boiled beef or bacon, loaves as big as beehives, and immense jugs of beer formed the provisions, and disappeared at a regular and very considerable speed. A few men, their day's work already done, sat with their pipes on benches under the trees. Altogether there were a good many people sufficiently disengaged to be easily attracted by any unusual sight or sound.

And, at this juncture, making its way slowly up one side of the green, between the houses and the trees that skirted the cattle-pens, there came a very unusual and curious little procession. First marched Robert Clay, in beaver hat and brass-buttoned coat, a strong, prosperous figure, looking defiantly from side to side as he went on. In his hand was the one end of a rope, while the other end was bound and strongly tied round his wife's waist. She, drawn steadily, but not roughly, along by this, followed him with feeble steps, her face quite hidden by a black hood, and her hands hanging powerless at her sides. All energy seemed to have left her; the only efforts she made were to keep on foot and to keep curious eyes from her face—otherwise she seemed entirely passive. Behind her was another man, who in that inland crowd had the unmistakable look of a sailor, though his clothes were like those of his neighbours—a sturdy man, with an ugly scar across his face and a wooden leg, who managed, in spite of his lameness, to keep close to the woman, and now and then spoke to her in a low tone.

She never seemed to pay the least heed to his words, though they were friendly and even respectful. She perhaps did not hear them, for a throng of young fellows and boys followed making a good deal of noise, and the whole place was full of the voices of men and beasts.

Clay seemed to be making for the top of the green, where in front of the church gates there was a small unoccupied space. He went on grimly, paying no heed to anybody, until this was almost gained, and then there came a sudden interruption. From the big iron gates there swiftly issued the Vicar in cassock and bands—his cassock flying behind him, his pale face and nervous figure all on fire with energy—until he stood opposite the farmer, and the two men looked each other full in the eyes.

"What are you doing?" the Vicar said sternly.

There was a pause—hardly perceptible—before

Clay answered, but he spoke with no faltering voice.

"Selling my goods and chattels like my neighbours."

"Is that woman your wife?" was the next question.

"Ay, more's the pity!"

"Did not you marry her in this church?"

"I did. Will you buy her?"

"Did you not swear to love, honour, and cherish her?"

"Come, Parson, I married her—that's enough. I've kept her this eight years, and now I'll keep her no more. Better preach to her than to me."

"I will. But take notice, you Robert Clay and all you who hear me. You have got some notion that to sell a wife is not to break the law. I tell you it is to break the law of God and the law of England. No power but that of the High Court of Parliament can break a marriage, and no man, woman, or child in England can be sold against their will."

"Ay, ay," shouted the sailor suddenly; "but suppose it is with her will?"

The Vicar turned quickly to the woman.

"But it is not," he said eagerly. "Mrs. Clay, this is not your doing?"

She shook her head faintly, her face still hidden.

"She's half-dead," the sailor went on. "He's flogged her till she's stupid, and he'll kill her if she goes back with him. You should be glad, Parson, as she's got better friends."

"Buy her yourself, Parson," a voice in the crowd called out. "You want a wife."

A roar of laughter followed this excellent joke, and while it was still ringing over the green Mrs. Clay put out a hand and beckoned the Vicar to her.

Clay was rocking himself from side to side, repeating, "Buy her yourself, Parson, that's it," and Mr. Laurence passed him and came close to the woman. When he was quite near she lifted the side of her hood and let him see her face. Where yesterday the skin had been pallid there was now a hideous bruise. So dreadful had been the force of the blow that she was hardly recognisable, and it seemed really a miracle that she had survived it. She stood trembling for a second with her terrible hurt uncovered; then she drew down the hood again, and said faintly:

"It is my will—it is my doing. Let him alone."

Whether Clay heard these words, or whether he only thought time enough had been wasted, he gave a pull to the rope, and, the Vicar being no longer in the way, the group moved on a few steps.

Then the farmer stopped, and, facing the crowd, shouted, "Who'll buy a wife?"

There were two or three jesting bids from strangers, but only one known voice answered.

"I will," said the sailor, "and there's the price."

Five bright guineas passed from the one man's hand to that of the other, the rope was delivered up, the bargain was concluded, and Mary Clay had got her divorce.

The rope had passed from Robert Clay's hand to that of the sailor; he proceeded deftly to unknot it, and the woman who had been sold was

released. "Molly," he said in a tone clearly audible to those standing near, "if, as Bob says, you were his chattel this morning, you're mine now. Come home, and be sure of one thing—you'll get neither hard words nor hard blows from me."¹

He took her by the arm and turned round to lead her back down Church Green the way she had come. She was going with him submissively, in a dazed kind of way, when the Vicar again stepped to her side.

"Mrs. Clay," he said earnestly, "I must speak to you. Come first, for a few minutes at least, to the Vicarage."

"She goes nowhere without me," the sailor answered for her, "but she can go to the Vicarage with me if your Reverence likes."

"Come, then," said Mr. Laurence, and led the way through the gates and by a side path across the churchyard to his own house.

Not a word was spoken on the way, and, indeed, the Vicar's mind was full of trouble and perplexity. Though he had heard from both Robert Clay and his wife that their married life was rapidly approaching this extraordinary end he had hardly believed it. He knew very little of the rustic mind, and could not conceive that a proceeding so lawless would really be carried out. The evening before the fair, it is true, when Mrs. Clay had assured him that her husband had positively made up his mind, and even forced her to agree, to the sale, he had become alarmed and had seriously asked himself whether he ought not to appeal to the nearest magistrate. This gentleman, however, lived ten miles off, and even supposing it had been possible to have laid the case before him, what could he have done? Impossible that either Clay or his wife could be punished for an intention: he indeed might be punished for ill-treating her if she or her neighbours would bear witness against him; but most certainly they would not do this; and what was wanted was some present, immediate remedy. The only glimmer of hope remaining was that in the next hour, before Molly had entered the house of her purchaser, he might find some words in which to persuade her that all her past sins and sufferings were less than the utter perdition that now threatened her.

He hurried across the churchyard, followed by the two newly linked together. Molly still moved feebly and was still muffled in her hood. The sailor in spite of his wooden leg was strong and active enough to give her help if she would have accepted it, but she dragged herself along resolutely without touching his arm until they reached the door of the Vicarage, and Mr. Laurence led them into his bookroom and pushed chairs forward for them to sit down.

¹ Moor Edge is a real village, though maps of the Midlands call it by another name. The incident of wife selling is also a real one, and is not a solitary example. Undoubtedly wives were now and then sold by their legal owners, even within the memory of persons still living; it would not therefore be fair to suppose that in any part of England, or at any period, such bargains were frequent; they seem, indeed, to have been almost exclusively made by the roughest and most degraded inhabitants of towns, and to have called down as much reproof from decent people as they would do to-day. It is, however, within the writer's knowledge, that a farmer sold his wife in Derby Market-place about 1844 or 1845 to a man of considerable wealth, who had made his fortune as a cheese factor.

He himself stood upon the hearth facing them. Molly thrust back her hood, showing her disfigured eye and cheek, but it was not at her he looked. He was giving all his attention (and all the more because the man, though a parishioner, was almost a stranger to him) to her purchaser, and here he was completely puzzled. For this was not the type of face he had expected to see, nor did the man's attitude or manner express the want of decorum which he instinctively attributed to the maker of so strange a bargain.

"Will you tell me your name?" the Vicar said at last after a quite perceptible pause in which he had not known what to say.

"My name is Thomas Bell, your Reverence," the other answered briskly, "and I'm a native of this parish, as Molly there knows well. I went to sea ten years ago this May, and I served His Majesty on board the *Warspite* first and the



A NATIVE WHO WENT TO SEA TEN YEARS AGO.

Shannon afterwards, till, as your Reverence sees, I lost a leg. I've a pension and a bit of prize money, and the cottage at the bottom of Church Green that belonged to my old mother. So I can keep her comfortable, and I mean to."

A light came into the Vicar's face as Bell spoke. This was no surly brute such as Robert Clay, but, as he could now perceive, a man with frank, kindly eyes, and a voice that sounded honest. Though he had not recognised him at first he now remembered much that he had heard about him. His cottage was the neatest and prettiest in the village—a white nest perched on the high bank at one corner of Church Green, surrounded by a good strip of garden and kept with exquisite trimness. It had so happened that Mr. Laurence had never yet

exchanged a word with Bell, but he was well acquainted with his housekeeper, tidy old Goody Till, and she had been garrulous in his praise. She would have been in the workhouse, far away from her native Moor Edge, if he had not taken her in and given her a comfortable home. Thomas Bell seemed to be the instinctive helper of his helpless neighbours. The question was, however, whether in his last enterprise some feeling much more personal than philanthropy might not undo the good he meant to do. For the words "as Molly there knows well" had meant much more than they said—had betrayed plainly the fact that Molly had not been without share in shaping the young man's earlier life.

"I'm glad she has a friend," the Vicar said. "Mrs. Clay," he went on, turning to her, "were you able to do what you promised me last night?"

"Yes, sir," she said faltering, "I did what I promised—I told him what I would do—and I begged him to let me stay, but, oh!" and her passion broke out again in tears and sobs, "the child is mine and I must have her. I'm battered and dazed, and glad to get away from him, but I want my little lass! And he said he'd send her away."

She had risen from her chair and stood looking round her like a creature distraught. Bell took her hand and drew her back to her seat.

"You shall have your little lass, my dear," he said, "if I have to steal her for you."

The Vicar went to a queer angular sofa that stood near the window and began to shake up unshakable cushions.

"Now, Mrs. Clay," he said, "come here and lie down. When you've been quite quiet for ten minutes we'll talk a little more. Make her lie down; Bell."

He left the room, and came back carrying a glass of milk and a slice of bread. "Eat and drink," he said, "and then rest a little."

She had had no food that day, and the want of it was adding to her faintness. She took the glass thankfully and drank, and Bell watched her with satisfaction.

"Now," said the Vicar, "I want to have a few minutes' talk with Mr. Bell. You are to lie still, and we are going into the room opposite and will come back presently."

They went away, Bell following obediently enough, and she lay still, quite out of the turmoil and the uncertainty; some barrier passed that seemed to her vaguely like that of death, not a thought of the future in her tired and confused mind except the one thought—and even that hushed out of its sharpness—that she must not lose her child.

She was so exhausted that presently she fell asleep, and so the two men found her when they returned to the room, her death-like face lying quietly on the dark leather cushion and her hands hanging half open in the nerveless abandonment of deep sleep. The Vicar's face was grave again, and he sighed as he looked at her.

"May God pity her!" he said softly, and turned away to go back to the opposite room.

He had a mind to shut the door and kneel down

and pray for guidance in this strait that seemed too hard for him, but to his surprise Bell followed him and stood within the door as if he had yet something to say.

"Your Reverence," he began, looking vaguely from side to side, and seeming to find his words with difficulty: "I'm not a brute like Clay—no, nor a heathen. I've told you what I meant, and I say again that to my thinking Molly is my wife now as she should have been ten years ago. But all the same she shall make her choice. It is true, as you say, that she's dull and half crazy with trouble and ill-usage, and I'll take no advantage of her. Let her have a week to get herself rightly alive again, and then we'll see. Only I say this—and I mean it. If Robert Clay molests her, or if I hear of anybody trying to bring them together again, I'll take her away. I may have to steal the child, as I said, but anyhow I'll take her away, and there's not a soul in Moor Edge will ever see her or me again."

He struck his stick sharply on the floor as he finished this long speech, which had been given with growing energy from beginning to end, and looked fiercely at the Vicar to emphasise the concluding threat. But Mr. Laurence felt the day was gained. He held out his hand eagerly to the sailor.

"Thank you," he said. "That is right. You are a brave man, Mr. Bell, and an honest one, and I wish with all my heart she had been your wife. If you will leave her here with my old housekeeper, I promise nobody shall say a word to her in favour of Clay."

Bell shook his head.

"That I can't do," he said. "She'll have to be my housekeeper, I reckon, though I've got one already. If I were to leave her here, or anywhere, the neighbours would say I had not paid for her—they'd be telling her she ought to go back. But I'm better off than some, and your Reverence can come if you please and see that she'll have a decent place to live in, and a decent woman to look after her."

"I don't doubt it," said the Vicar, fearful of pressing his point lest he should lose what he had so unexpectedly gained; "and I will come to see her if you will let me. I have been once or twice to your door," he went on, "but you were never at home."

"That's true. I'm not fond of sitting by myself. Well, I must wake the poor lass and take her home."

They went back to the bookroom. Molly was awake now and sat up as they came in.

"Oh, sir," she said, "I am ashamed at my ill manners. I've been sound asleep."

"You needed rest, and need more yet," the Vicar said kindly. "I should like you to stay here for a day or two, and let my good old Mrs. Hardy nurse you."

"No, no," said Bell hastily. "Come along, Molly; you shall go home and rest there."

She looked at him in a curious way, half inquiring, half defiant. Then her head drooped again, and she moved towards the door. She stopped just before she reached it to curtsy and say "Good

day, your Reverence, and my humble thanks for all your kindness"; and then she passed out of the room and out of the house without another word or look for either of the men.

CHAPTER III.

THE dulness of Moor Edge at ordinary times was nothing to its dulness immediately after a fair or wake. The great fair came early in summer, the parish wake in autumn; for these two festivals everybody bestirred themselves. The pursuit of gain or the pursuit of amusement roused all classes, from the richest farmer who drove his wife to the village in his smart gig, to the poorest old man in the almshouses. But great and heavy was the lethargy that followed each of these periods of dissipation. And many a man, usually pleasant enough to his neighbours, was at such times not to be approached except with fear and trembling.

Robert Clay was one of the worst of these. It had been for some years his habit to intoxicate himself pretty thoroughly at every merry-making. Even in the early years of his marriage, and before Molly had learned the evil lesson of his example, he had been fond of boasting that he could "carry" a quart more of the home-brewed ale at Johnson's than any of his friends, and lately he had gone from bad to worse. His enormous bodily strength still held out, but his shrewdness nowadays often failed him, and his temper almost always. The "hell" which he had accused his wife of making was indeed quite as much his work as hers; and her absence was no reason for the return of peace and quiet life.

He had got home and to bed somehow on the evening of the fair day. After many hours of heavy sleep he was awake by the voice of little Betty outside the door calling loudly, "Mammy! Mammy!"

He had forgotten for the moment all that had happened, and still half-asleep, he shouted impatiently, "Molly! answer the child, can't you?" Then waking a little more, "Curse her for a drunken jade!" and then rousing still further, he remembered that his wife was far beyond hearing either the child's call or his curses.

And then for the first time there penetrated dimly his drink-benumbed brain the question, "What will Betty do?" At this moment Betty was crying loudly for her mother—she was coming up the stairs, climbing slowly step by step, for they were steep for her little legs—she was at the bedroom door trying to turn the handle, and always vociferating "Mammy, Mammy!"

Of course he could soon pacify her, he thought to himself, or Sally. There, in a happy moment, was Sally, calling her away with delusive promises of "a sugar piece," to be had below; and now for a little while he might be quiet again. But he was fairly awake, and by-and-by got up and went downstairs.

Hitherto, ever since Betty had been big enough to sit in her high chair and feed herself, she had shared her parents' meals; her place had been beside her mother, but her father had always talked to and petted her, and in these last months of growing discord the child's presence had been the

one thing that made the gloomy meetings endurable. But to-day there was only one place prepared at the table. The great piece of cold boiled bacon stood as usual in front of Clay's chair, and near it stood the big jug of home-brewed beer; but Mrs. Clay's little brown teapot was not visible, and the side of the table where she and Betty had hitherto sat was altogether bare and empty.

Clay called out to Sally, who was making a great rattling of pots and pans in the kitchen: "Where is the child? Bring her to her breakfast."

"She's had her breakfast an hour ago," Sally answered; "and she's gone out wi' Jim to see the calves."

"Why did you give her her breakfast without me?" Clay asked angrily.

Sally turned round from her pots to answer him. "Why, maister," she said, "what could 'ee do with



SALLY TURNED ROUND FROM HER POTS TO ANSWER HIM.

the child? And the poor thing wanted her bread and milk an hour ago!"

He stood for a moment, wishing to give a savage answer, and not finding one; then went back to his solitary meal. It was a good riddance that he had made of his wife; but he did not altogether like the absence of Betty. "She will be here at dinner," he told himself, and so ate what breakfast he could, and went away round his farm. This was about eight o'clock; towards eleven something took him to the dairy, and there he found Betty sitting on an upturned milk-pail and eating bread and cream with much satisfaction. She did make her appearance at dinner, but very dirty, as Sally had not had time to wash her, and entirely without appetite for the boiled beef and suet puddings. She was rather cross, too, and finally struggled down from her chair and declared she "would go to Mammy."

Clay tried in vain to coax her. She had always been delighted to go to him as long as her mother was there—being used to nothing but spoiling

from him; but to-day everything was wrong. Though she had been following her own devices all the morning, she felt lonely and deserted, and somehow, though she did not know how, Daddy was to blame. Finally she crept upstairs, and



THE CHILD WAS EATING BREAD AND CREAM.

finding the door of her mother's bedroom shut, she sat down outside it, crying bitterly, and so cried herself into a long, sound sleep.

It was Clay himself who found her there and carried her down to the parlour. He tucked her up on the sofa, and told Sally to listen for any sound of her waking, and then he rode off to Oakhampton, four miles away, and did not come back till night.

Day followed day, and things were much the same. Clay insisted that the child should have her breakfast and dinner with him; but, as a matter of fact, it was little pleasure to either of them. Betty missed her mother's care and did not "behave herself." Clay looked on in perplexity, and sometimes scolded her, but rarely, for the little creature was the only thing in the world that he consciously loved. He had a vague notion that he must get somebody to take care of her; but whom? He had already two women servants, Sally and the dairy maid; to keep three, even if he could afford it, would have been a serious matter, enough to set all the tongues of the parish to work upon his extravagance. He had no near relation—the only person he could think of was a cousin's widow who kept a shop and had her own children to look after. He might possibly send Betty to her; but to part with the child was a thing he did not like. No, somehow he must try to keep her.

There was no doubt that she soon began to lose her pretty ways. She escaped from the house now whenever she could, and found playmates among the labourers' children. There was a winding narrow lane that went from the farm to the village,

opening into the highway a little to one side of Church Green. The lane was nearly a mile in length, and Betty had never yet traversed its whole extent; but she had made her way into it, and to some farm-cottages that stood nearly half-way along it, where there were children of her own age and thereabout. Here she was a great personage, and here her father found her one day enjoying herself immensely, and behaving, as even he could see, like the veriest little ragamuffin of the community. He put her on his shoulder and carried her home; and though she had always been delighted with a ride of this kind, she sulked and almost wriggled off her perch before the end of their journey. What should he do? he asked himself. This state of things was not at all what he had anticipated.

As Clay approached his own house, he saw a man leaning against the doorway, evidently looking out for his arrival. It was Sally's father, Tom Evans—a burly farm-labourer, and his soil-stained smock and muddy boots showed that he had just come from the fields.

"Good day, Maister Clay," he said, stepping out of the house to allow the farmer to enter, "I've a word I wanted to say to 'ee, if yo plase."

"A word to say, have you?" Clay answered. "Well, come in, then."

"I amna fit to come in, maister. Sally, she's cleaned the floor, and she wonnot have it filed she



SALLY'S FATHER HAS A WORD TO SAY.

says. And it's about Sally as I be come," he added, twisting his old felt hat about in his fingers nervously.

"Well, what is it?" Little Betty had gone indoors, and Clay was manifestly losing his temper.

"Sally and me," the old man answered, "has

settled as she must take harvest work along o' me at Squire's. My old woman canna work this year for her back, and we canna lose the harvest money. So Sally thought I should tell you as she must leave."

"Oh, she must leave, must she? Come here, Sally," he called, and very slowly, rubbing her bare arms on her apron, Sally came.

"What does this mean?" the farmer asked roughly. "Do you want to go and work at the harvest?"

"It's feyther wants me," she answered stolidly.

"So I said—so I did," Evans replied. "Not all in a minute, maister—a month's warning, that's it."

"Now—why?"

Sally went back to her work—her father stood gazing at Clay's angry face till he burst out into sudden anger too.

"Why? Because I won't have my wench in a house with a drunken maister and no missis—that's why. But my wish was to be civil—nay, I'm not a woman, maister?"

Clay had suddenly struck out, thinking in his rage that he should fells Evans as he had more than once felled his wife; but the old man moved quickly aside, and the striker was almost upset by his own impetus. Evans skurried off, with a grin on his wrinkled face, saying as he went: "This day month, maister, I'll fetch Sally's box."

"A drunken master and no mistress!" This was what people were saying; and very likely they were saying that there was a motherless child going to the bad. After all, was the former state of things so much worse?

Robert Clay sat alone in his parlour and wondered what he should do. Though his habits had gradually for years past been growing more and more those of a drunkard, his age, his out-of-door life, and his extraordinary physical strength had still preserved to him in the intervals of drinking a remnant of clearness of brain which, at this moment, did not add to his comfort. Had his wife been there, he would probably have maltreated her, for his temper was just as fierce and tyrannical as ever; but since she was not there, nor any other person to provoke him, he could suffer himself to see the real forlornness of his child's position, and in a smaller degree of his own. He even went the length of asking himself whether he would have done better to let Molly take the child—but no! In his furious anger with her he had been willing that another man should take his wife, but he could not have given up to any other—not even to her mother—his own child.

Yet what was he to do? He guessed well enough that it would be almost impossible for him to replace Sally by any decent girl—old Evans must have been backed up by the opinion of the neighbours before he ventured to say what he had said—and he could not trust the little one to any but a respectable woman. Already she was getting into bad ways—what was he to do?

He found out now that, except for an hour or two at a time, Betty had never yet been neglected. The change in her was glaring and all-pervading.

She had always seemed most sweet-tempered and "biddable"; now she was generally cross and often sulky. The man could not understand, nor could the child explain, that she was almost always uncomfortable, feeling and resenting the want of her habitual washings and brushings. After a week or two she adapted herself to Sally's hurried and extremely primitive methods of dressing her; but her appearance changed dolefully for the worse. Her skin began to lose its sweet freshness, and the pretty fair hair grew into a tangled mop, through which Sally dragged a comb when she had time. The baby lessons her mother had begun to teach her were being quickly forgotten; wandering about all day long, she learned the language of the stables and the farmyard. More than once she made her way into the pigsties; and one day, when Sally and her father had looked everywhere else for her, they found her lying fast asleep among a litter of very small white pigs, with her head on the bristly side of the mother.

For this naughtiness—innocent enough—she was so well whipped that she avoided the dangerous temptation in future; but the change only threw her back upon human playfellows, not very much more desirable than pigs. There was a certain red-haired Jack, a boy of about twelve, employed in all sorts of odd jobs about the farm. For a while his company seemed to Betty the best she could find, and she trotted after him with great perseverance; but Jack, though he was amused at first, soon found his baby admirer a nuisance and escaped from her more or less roughly. One day his master heard a dialogue between the two in the lower part of the farmyard, when Betty thought she was out of reach of law and order.

"Dzack! Dzack!" she was saying coaxingly, "I'se going with 'ee. Take me up, Dzack."

"No, missie, you bain't a goin'," Jack answered. "It's not a place for you. I'm goin' to fetch up the cows; and th' ould red cow, her'd swaller you like she did Tom Thumb."

"Her wouldn't, and ye'ar a leear!" cried Betty, adding ugly words; and the next moment, her father, stepping out of an out-house close by, had caught her up, and was bearing her away into the house. He was speechless—struck to the heart. His little Betty—the one white spot in his besmirched life—was she come to this, that her baby tongue shaped so glibly the coarse talk of his lowest servants? With the instinctive habit of years, he laid the blame on his absent wife; and yet a remnant of conscience told him that never, while Betty had a mother, could she have learned this manner of speech. To-day he did not whip the child as he had done already two or three times. He took her into the parlour and tried to make her understand that she was "a little lady," and must keep in doors except when he or Sally took her out; but she understood very little and remembered still less of what he said to her. She hugged and kissed him, and said, "Yes, Daddy," but by to-morrow was quite ready for another escapade; and so things went on, very disastrously for the lonely child.

THE ART AND MYSTERY OF TATTOOING.

I.

THE "ancient and fantastic" habit of tattooing is common to all the races of men. It is co-extensive with the limits of the world, and coeval with human history. From the polar regions to the farthest islands of the south the practice has prevailed, and from the first recorded epoch. It flourishes still in "strands afar remote," it exists to a lesser extent in all European countries, and it is nowhere quite extinct.

There are constant references to the subject in classic writings. Slaves and captives taken in war were graven with marks or pictorial emblems in various parts of the body; soldiers, certain workmen, and criminals were similarly treated; and "the followers of several divinities" habitually tattooed themselves. Religion and fetishism have influenced the practice in many countries and amongst peoples differing from one another in most other accustomed practices. Moses forbade it expressly to the Hebrews: "Ye shall not make any cuttings in your flesh for the dead, nor print any marks upon you." Mohammed seems to forbid it in the Koran, but many Arabs frequent the tattooer, and his art is in great honour amongst the Kabyles of the desert. These, and the Mohammedan negroes who follow the usage, say, that before entering Paradise they undergo a purification by fire, which cleanses them of all terrestrial and idolatrous marks.

The early Christians were frequently graven with a cross in the palm of the hand or on the arm. A Council of the Fathers banned the custom; but it was not easily abolished, and a French author says that pilgrims and visitors to the Holy Land were often tattooed on the wrist or arm "with signs representing the cross or the monogram of Christ." A seventeenth-century traveller, Thévenot, quoted by Dr. Lacassagne (*"Les Tatouages: Etude Anthropologique et Médico-Légale"*) has the following allusion: "We spent the whole of Thursday getting our arms marked after the pilgrims' fashion. The Christians at Bethlehem do it, according to the Latin rite." The Grand Duke Nicholas of Russia is said to have had his arm tattooed at Jerusalem. Lombroso (in the remarkable chapter on tattooing in *"L'Uomo Delinquente,"* of which I use the French translation) says it is a frequent habit after pilgrimages in Italy, and he has observed a great number of religious emblems tattooed on persons who have visited the sanctuary of Loretto. In various towns both in Italy and in France professional tattooers haunt the neighbourhood of certain churches and press their services upon those who enter. This must have been to some extent a religious usage of the ancient Egyptians, for pointing and cutting instruments recognised as belonging to the tattooer have been found in the oldest tombs.

Before enlarging on the subject it will be well to get a definition. That of Dr. Berchon (*"Histoire Médicale du Tatouage"*) is not easily improved upon. Tattooing, then, according to this authority, is the process by which certain colouring matters, vegetable or mineral, are introduced beneath the skin, at various depths, for the purpose of producing a coloured design, which endures long, but is not absolutely indelible. The word "tattoo" is from the Tahitian verb *Tatau*, and contains the idea of the sound—tat, tat, tat—given out by one of the tattooer's implements.

Divers Methods.

There are various modes of performing the operation, which, as Lombroso justly observes, is rather surgical than æsthetic. Its ethnological tradition is shown to have come down to us from far-past ages, and it is easily traced from the period of the downfall of the Roman Empire. The divers methods of the ancients, says Berchon, are perpetuated in almost every race, and have been recognised most particularly in Oceania, where the Marquesans, the Tahitians, and, in general, the tribes of the yellow Polynesians, still use by preference the practice of tattooing by puncture or pricking, while the darker-hued Oceanians join with that the tattooing by cutting or incision. In some of the South Sea islands and in some of the Asiatic isles there are varieties of the operation which recall the more or less illegitimate tattooing by burning, where the instrument employed is fired to a red heat. The black race in Africa, particularly, has recourse to a cutting process, afterwards rubbing into the wound an irritating substance, which causes a ridge or protuberance. Sometimes the instrument used is a red-hot knife, but this is not tattooing proper.

In European countries at this day there is probably no other method than that by puncture or pricking with needles. This is, at all events, by far the commonest process. Berchon says that a form of burning may be used occasionally (he does not, I think, cite an instance), a small quantity of gunpowder being disposed with art on the spot where the design is to be traced, and carefully exploded.

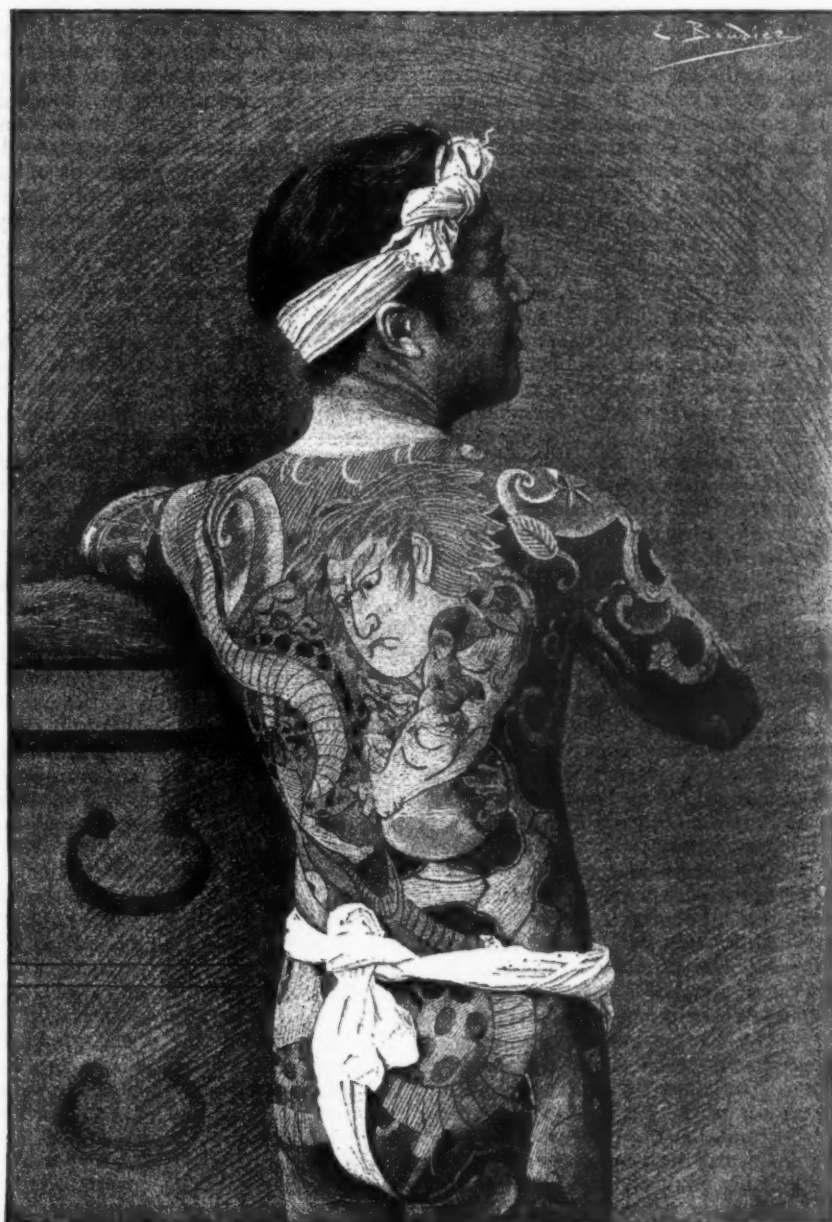
Ordinary needles of various sizes are used. These, to the number of three or five, are fastened with threads between two small pieces of wood, or inserted in a small cork, the points of the needles being on a level. The design, of whatever nature, may be pricked out directly with this instrument, or the operator may trace it first upon the skin—which should be stretched as tightly as possible—with pen or pencil. Some tattooers have their designs pricked on paper, which is used as a sort of sieve, the colouring matter being shaken through the holes, after which the needles are brought into play. Occasionally, says Berchon, the tattooers

"have models of designs, fashioned in wood garnished with sharp points, which are driven into the skin in such a manner that the operation is performed at a single stroke." This method, he adds, is very rare.

The needles are inserted perpendicularly or in a

Professional
Tattooing.

In Paris, Lyons, and other large towns of France, says the same author, there are professional tattooers, who live entirely by their calling. They have little studios of their own, or they haunt the wine-shops, and go about to fairs and fêtes. Their clients have



TATTOOING IN JAPAN.

slightly oblique direction, and during the operation they must be dipped from moment to moment in the liquid which holds the colouring matter. The designs, simple or elaborate, take but a very short time to complete under the fingers of a skilful operator. Lacassagne has seen "fairly complicated patterns executed in half an hour."

the choice of a number of designs which the tattooers keep in albums, and of which the price is ordinarily fifty centimes. Sixty to seventy-five centimes, says Lombroso, is the sum demanded of the poorer class of pilgrims to Loretto; "large enough, when one thinks of the possible consequences of the operation"—erysipelas, gangrene,

amputation, sometimes death itself. Lacassagne has noted the general use, amongst French tattooers, of designs traced on glazed paper. The principal outlines are pricked with a pin, and when the paper is laid upon the part to be tattooed it is smeared over with lamp-black. The needle then works over the impression thus taken. On the other hand, when the tattooer is something of an artist with the pen, he traces his own original design upon the skin, and then punctures it.

Fame comes slowly to tattooers in Western countries, where, on the whole, the art is but little honoured, and no tattooer's name has been widely bruited. Lacassagne has mention of an anonymous Irishman in New York, who was much reputed amongst the sailors, both for the excellence of his work and for the rapidity with which he did it. One of the French sailors examined by Lacassagne displayed on his back a large picture of an Indian holding up the flag of America, which he said the Irishman had tattooed upon him in five and twenty minutes. It had cost him the equivalent of fifteen francs. The Irishman gained his living as a tattooer, frequenting the sailors' haunts, and sometimes earned as much as 5*l.* in a day.

The colouring matters employed
by the modern tattooer in European
countries are not very numerous.

Probably they were not very numerous at any time. Some are considered to be more dangerous than others, but Berchon makes rather light of this point. There are possible dangers connected with the introduction of any and every foreign substance beneath the skin, and there is a tradition amongst tattooers that vermilion (which also, by the way, fades the soonest) causes, or may cause, more hurt to the subject than the other colouring substances ordinarily made use of. Amongst these other substances Lacassagne names China ink, powdered charcoal, finely powdered brick-dust, coal-dust, Prussian blue, washing blue, lamp black, and ordinary writing ink. Amongst the ancients the colouring matter seems to have been always, or nearly always, black; the precise nature of the substance remains doubtful. Various colours may be combined in one design, but red and black and varying shades of blue (whatever be the actual colouring matter) are the dominants. Berchon inclines to the opinion that, although there is danger in all the colouring substances which the tattooer has recourse to, no one of those in ordinary use in Europe is greatly more dangerous than another. This aspect of the question will be discussed later on, and for the present it will be sufficient to suggest that the instruments employed, the nature and quality of the colouring matter, the condition of health of the person tattooed, the fineness of the skin, the activity of the circulation, and the richness or poverty of the blood should all be taken account of.

A Protracted
Ceremony.

Naturally, the risks incurred increase in proportion to the size of the design, and in savage countries, where it is the custom to tattoo the whole or the greater portion of the body, the utmost care is taken of

the patient while the operation is in progress. The first effect is a lively irritation of the punctured surface. It becomes hot, red, and inflamed, and often swells abnormally. These effects may pass very quickly, and if graver consequences do not ensue, the patient is in a short time thoroughly healed.

As to the sufferings endured (usually with a fine heroism) by savages under the hands of the tattooer we have the testimony of innumerable travellers. Very often the process has to be suspended for weeks, or even for months, to allow the youth to get the better of his wounds; and in some countries the warriors are not completely tattooed until long after middle age. The process is of cardinal importance, generally invested with a certain mystery and performed with a certain secrecy, by a tattooer whose art has been passed on to him by his father and his father's father. Princely families retain their own tattooer—a master of his calling, holding an hereditary office; and if, owing to the death of his immediate predecessor, the office has fallen to him before his hand has attained its proper cunning, the royal clients whose "cutaneous envelope" he is destined to illustrate will defer their tattooing for a period. In tribes (not numerous) in which it is customary for the women to be elaborately tattooed, a human victim is sometimes sacrificed to celebrate the "finished decoration" of a princess. In other tribes, says Westermarck ("History of Human Marriage"), as soon as a young brave has passed from the hands of the tattooer, a great feast is given in his honour, and he is then entitled to offer himself as a suitor to the maiden of his choice.

For a picture of the tattooer at work in these far-off regions we may turn first to the pages of Dumont d'Urville ("Voyage Pittoresque autour du Monde"), who describes a female tattooer in the exercise of her art. The patient was being tattooed on the right cheek, "the left being already covered with these honourable marks." The skin had been smeared with a black preparation, on which the tattooer traced her pattern. This done she took a little instrument, formed of an albatross' bone fastened at right angles to a small bit of wood, like the lancet of a veterinary surgeon, or, better still, a miniature pick-axe." The bone was sharpened at the extremity, so that, when the back of the wooden handle was struck with "un petit bâton," it laid the skin open with a deep incision. Blood came in abundance, which the operator wiped away both with her hand and with a wooden spatula. The colouring matter was then laid in the slit. The patient "must have suffered cruelly," adds the narrator, "but he did not utter so much as a sigh."

Dumont d'Urville finds it possible to praise tattooing as an embellishment of the human countenance. It adds expression and energy, he says, "and strangers accustom themselves easily to this most curious adornment." It saves the features from the disfiguring effects of mosquito bites, it conceals the rude usages of excessive heat, cold, or wet, and the coming on of age. Better than all other outward ornament, moreover, "it reveals in an instant the condition and rank of the wearer."

The natives of New Zealand have always attached great importance to the art of the tattooer,

which they call *moko*. It is forbidden to the women to tattoo their faces, that privilege being reserved to the warriors, each of whom, says Lacassagne, has a *moko* proper to himself—his armorial bearings in fact. A native who was shown by a European the seal on which his arms were engraved, and to whom the meaning was explained, replied at once, "Ah ! it is the *moko* of your family." After each new victory the warrior engraves an emblem of it on his person ; hence the *moko* comes to play the part of "a veritable figurative writing." To return to the process itself. The instruments in use amongst the Oceanians include fish-bones, bones of birds (sharpened or pointed for their purpose), and the hard thorns of plants. With these is found a little mallet or hammer, where the operation is performed by incision. Several kinds of nuts, bruised and steeped in cocoa-nut oil, furnish the colours for the designs.

There is no doubt that, despite the fortitude with which it is commonly borne, the protracted ceremony of tattooing is much dreaded by the native Oceanians. We have it on the authority of travellers, says Berchon, that the Polynesian tattooers "had often to hold their patients down by force until the cruel operation was finished." The recitation of a scene witnessed by the naturalist Banks on his voyage with Captain Cook gives confirmation to this statement.

Tattooing of Women. Banks saw a girl of thirteen tattooed on the back. The tattooer used an instrument furnished with thirty teeth, with which he made more than a hundred punctures per minute. For a quarter of an hour the little victim endured her pains with the utmost courage, then she began to cry out, sobbed violently, and screamed to the tattooer to release her. But he continued to ply his instrument, and when the girl began to struggle, called on two women to hold her, by whom she was alternately coaxed, petted, scolded, and beaten. Banks quitted the scene at the end of an hour, when the operation was still unfinished.

In some tribes the women are tattooed as elaborately as the men, but this is not a frequent custom. In general the women of a tribe carry far fewer marks of the tattooer than the other sex. There are tribes in which the men only are tattooed, and in others—this, however, is most exceptional—none but the women undergo the operation. Tylor ("Primitive Culture"), discussing legends of tattooing, tells how it came to pass that the Fijians tattoo their women and not their men, and their neighbours, the Tongans, the men and not the women. A Tongan was sent to Fiji to learn how tattooing should be done. The Fijians told him : "The women must be tattooed and not the men." He repeated this saying diligently on his journey home, until he met with some obstacle in his path which nearly occasioned him a fall. At that unlucky instant he forgot the famous phrase, and, arrived at Tonga, he announced to his people, "It is the men we must tattoo and not the women." The precept was adopted and applied from that hour. The explanation, says Tylor, seems quite natural to the Polynesians, for the people of Samoa have a story very similar to the one which is traditional in Tonga.

Tattoo as Costume.

Let me summarise now a lengthened and vivid account from the "Lettres sur les îles Marquises." Here the author insists that the smallest and least important details of the rite have a sacred significance, and are carried out either in secret or in some consecrated spot, accompanied by ceremonies which enhance their solemn character. "It was only by special privilege that we, as profane strangers, were permitted on one occasion to witness the operation."

The tattooer, nephew of a celebrated artist in this line, was but fifteen years of age, "a most interesting young man." His patient was couched on a heap of straw, with several friends to comfort or maintain him in the proper attitude. The tattooer had beside him his instruments of bone and cups filled with coloured liquids, and began by designing "a thousand dainty figures, lace-work, embroideries, and sketches of fishes." These designs outlined on the skin, the artist proceeded to prick them in with his needles. It was very evident from the poor patient's grimaces that there was "quelque chose de piquant" in the operation, which indeed presently drew from him "les soupirs de la douleur," though he uttered never a cry. "After some hours the patient is released, the tattooer having first carefully wiped away every drop of blood. The tattooer receives his customary recompense, and the smarting patient—to whom certain kinds of food are forbidden for several days—goes home, where the lace-work that has been pricked on his person becomes so many agonising ulcers. In a few days' time these ulcers are healed, the laces and embroideries reappear more beautiful than before, and never to be effaced."

The tattooing of the two sexes, the author continues, is by no means the same. The women's ornaments, "those even of the most exalted princesses," are limited to buskins, bracelets, a glove perhaps on one hand, epaulets reaching midway down the arms, and certain markings on the lips and ears. For the men, "c'est autre chose." From the feet upwards there is scarcely a portion of the body which is not elaborately decorated : "stockings and buskins of the finest design and the choicest workmanship that I have ever seen" ; knees and thighs have their appropriate "covering" ; the back is "a veritable medley of tints" ; the upper part of the body bears "the most elegant cuirasse" ; "nothing is spared to render the design perfect." The hands have their gloves ("des gants à jour") mounting half-way up the arm, where they are met by the sleeves of the gorget ("hausse-col"). Having costumed his client thus from feet to shoulders, the tattooer finishes off with the face ; but here, according to le père Mathias G—, from whom these veracious facts are borrowed, the artistic sense of the designer seems to desert him ; for the features are studiously disfigured ("la figure . . . à dessein défigurée") with a sort of cross-bar pattern, "so painfully grotesque as to inspire both fear and disgust." The "motif" of the disfiguration of the face is to weaken the courage of the enemy in battle. "Sauf cette horrible caricature" of the features, concludes the reverend author, you might easily mistake the handiwork of

the tattooer for the finest imaginable coat-of-mail of an old-time cavalier; and when the native warrior is thus apparelled, nudity parts company with impropriety, and the "costume" is readily acquiesced in as proper at once to the climate and to the tastes of "this warlike people."

Pathology of
the Art.

The author of "Les Derniers Sauvages" furnishes another description of the mode adopted in the Marquesas. The man whose skin was being figured rested with his head between the knees of another, the upper portion of his body bent backwards. The tattooer, kneeling beside him, drove in with a small hammer the fine points of the "comb," which he soaked from time to time in the colouring matter. The comb travelled first between the patient's temples, describing on the forehead "une auréole sanglante." A second line traversed the face in a horizontal direction. These two lines (the regularity of which, despite the convulsive movements of the patient's head and the smallness of the tattooing comb, was perfect) formed the boundaries of a series of oblique "hatchings," very close together, which in all were but the beginnings of a broad band or fillet designed to enlarge and enhance the brilliancy of the eyes.

The contraction of the patient's features, the nervous movements of his limbs, and his continuous moans showed, says the narrator, at what a cost of suffering he procured for himself that "strange and indelible" badge of his people. And he remarks further that "the operation ends, sooner or later, by overcoming the most stoical powers of endurance. It is suspended then, and weeks or whole months elapse before it is resumed." Nor does the suffering end with the first sharp pains produced by the teeth of the comb. Erysipelas, accompanied by shooting pains, causes the whole lacerated area to swell, and an attack of fever is not unlikely to follow. In that case the sufferer is placed on a rigid diet, which is enforced until the date at which a sort of scale (*squame*) forms over the wounds. In due time the scale falls, leaving apparent the regular outline and slaty hue of the pattern tattooed. Berchon says that the tattooers themselves share the fears of their clients respecting the possible and not improbable dangers of these prolonged and terrible processes; and that this apprehension explains in many cases their refusal to exercise their art on the officers of European vessels calling at their shores. "The naturalist Chamisso relates that the tattooers of Otdia resisted every demand of the Russian officers of Kotzebue's expedition."

The missionary Ellis ("Polynesian Researches," 1829) notes that "many natives suffer much from the swelling and inflammation consequent on the operation of tattooing," disorders which "have had a fatal termination." Moërenhout says: "At the age of eight or ten were commenced these painful operations, causes of suffering so intense that some of the victims succumbed, although the 'sittings' with the tattooer lasted only a short time." Mariner ("An Account of the Natives of the Tonga Islands," 1818) observes that, where all remedies fail, the patients are "left to the natural course." Berchon cites several European cases where maladies con-

sequent on tattooing have necessitated amputation, and others in which death has resulted. The minor accidents to be guarded against are numerous. The pathology of tattooing—a sufficiently important subject as may be inferred—received little or no attention until Dr. Berchon made it his own in the treatise named above.

Hygiene.

Savage tribes, however, are far from neglecting the hygiene of the matter. The Oceanians have a whole manual relating to treatment after tattooing, to the aid of which is summoned all the authority of the *taboo*. Complete repose is enjoined, a careful diet, and deprivation from every physical indulgence. Amongst the emollients prescribed as a protection against inflammation are various healing leaves.

The operation itself is not, as a rule, seriously begun at a very early age. The tattooing of children and very young people is confined, for example, to the mere preliminaries of the process, "a few lines, a few signs on different points of the body; it is only by very slow stages that the ornamentation of the entire surface of the skin is completed," says Berchon. From his own observations in Polynesia he concludes that "it is the old men only who are magnificently blazoned from head to foot." Other circumstances in addition to that of the consideration of health may combine to delay the process of the "complete illustration of the human page": the cost of tattooing, too high sometimes for the poorer members of a tribe; "the absence of an accomplished tattooer" in a given district, or the waiting for some renowned artist from a neighbouring isle; sickness, dearth, protracted wars; all these causes may contribute to retard the operation, and they undoubtedly help to explain "the extreme slowness of the business of tattooing in Oceania." They are to be reckoned with, moreover (in conjunction with the preventive and remedial appliances everywhere employed in the Polynesian Archipelago), when the attempt is made to solve the question why this practice, with its grave inherent risks to health and life, is not constantly attended by results of the most serious nature. The rarity of pathological cases in Europe is explained chiefly by the smallness of the designs which the tattooer most often engraves on his clients.

The subject has still to be developed, and, as far as the documents will serve, concluded. It is only within the last five-and-twenty years that it has seemed worth while to write of tattooing as other than a curious practice of savages and a foolish practice of schoolboys. And in that period it has not occurred to anybody on this side of the Channel (if the disquisitions of a very small number of ethnologists be excluded) to write about tattooing at all. Germany has produced an elaborate volume. And in France and Italy it has engaged the serious attention of some three or four distinguished scientists, and has produced here an article, there a pamphlet, and elsewhere a compact treatise, of singular interest. These have not been exhausted in the cursory paragraphs of this paper. The medico-legal and other aspects of the subject remain for consideration.

TIGHE HOPKINS.

SOME HIGH MOUNTAIN OBSERVATORIES.

BY EDWARD WHYMFER.



JANSSEN DRAGGED IN SLEDGE UP MONT BLANC.

THE observatory on the top of Ben Nevis is in some respects unique.¹ It is permanently inhabited, and it stands on the very highest point of Great Britain. There is no other country in the world having an inhabited observatory on its culminating point; and, though there are several so-called observatories at much greater elevations than Ben Nevis, the most elevated of them are "stations" where self-registering instruments are deposited, which are visited from time to time, and are not observatories having observers constantly in residence.

MOUNT WASHINGTON.

One of the earliest, if not the first, "summit-station" which was occupied for meteorological purposes, and was permanently tenanted, was on Mount Washington, in New Hampshire, U.S.A., 6,286 feet above the sea. It was established in 1870, jointly by the United States Signal Service and by Prof. J. Huntingdon. "Probably nowhere else in the world," says Mr. A. L. Rotch² (of the Blue Hill Observatory, in Massachusetts), "has

such severe weather been experienced, the lowest temperature being here often accompanied by the highest winds." A special building was erected, which was open from 1874 to 1887; in the three following years it was occupied during the summer months only, and it is now closed altogether.

Although the elevation of this station was not great, the difficulties of the observers were very considerable. The atmospheric conditions were somewhat similar to those on Ben Nevis. Temperature as low as -50° F. (ten degrees below the freezing-point of mercury) was recorded, and this occurred when the wind, it is said, was blowing at the rate of 180 miles per hour! A still more remarkable statement is that the *average hourly velocity* of the wind for the *month* of January, 1885, was nearly fifty miles an hour! Frost accumulated on the anemometer during fogs to such an extent as to break off its arms and bring the instrument to a standstill, and to obviate this, so far as possible, the cup wheel was changed every two hours in foggy weather. For nine months in the year the two Signal officers and their cook were the only residents at the summit, and once or twice a month one of them went down for letters. These trips were not free from risks, and paralysis, it is said, seemed to result from close confinement.

¹ See the "Leisure Hour" for September 1894, pp. 694-703.

² In a paper communicated to the Boston Scientific Society, March 26, 1895.

There was an occasion when one of the two observers died, and the other was alone with the dead body for a couple of days, as no one could come up on account of cold and wind. After that time it was customary to have *three* men always at the station. "The scientific results furnished by Mount Washington," says Mr. Rotch, "were disproportionate to the efforts expended to maintain the station during the seventeen years of its existence. This is largely due to the fact that the observations have not been published in detail"—a remark which is also true of various other observatories.

PIKE'S PEAK.

The Signal Service of the United States maintained for about fifteen years another mountain observatory on Pike's Peak, in Colorado, at the height of 14,134 feet. The building shown in the accompanying engraving was put up in 1873, and three telegraphic weather reports used to be sent daily to Washington; but in 1882 they were given up on account of cost, and in 1888 the station was closed. It was found here that temperature ranged from 64° F. to -39° F., that is to say the extreme range amounted to 103° F. The velocity of the wind, however, was less than in most elevated places, and a rate of fifty miles an hour was seldom exceeded. This station is celebrated for "its electrical storms which occur when the air is moist, and generally when a light, soft snow is falling. Sparks



THE OBSERVATORY ON PIKE'S PEAK (14,134 FEET).

then emanate from the fingers of the outstretched hands, and the rotating anemometer cups look like a circle of fire." A paragraph has quite recently been going the round of the press describing the experiences of Lieut. Finley, in an "electrical snow-storm" on Pike's Peak. "At first the flakes only discharged their tiny lights on coming in contact with the hair of the mule on which the lieutenant was mounted. Presently they began coming thicker and faster, each flake emitting its spark as it sank into drifts of the snow or settled on the clothing of the lieutenant or the hair of the mule. As the storm increased and the flakes became smaller, each of the icy particles appeared as a trailing blaze of ghostly white light. . . . When the storm was at its height and each flake of

snow was like a drop of fire, electric sparks were shaken in streams from the lieutenant's finger tips, as well as from his ears, beard, and nose, and a wave of his arms was like the sweep of flaming sword-blades through the air, every point of snow touched giving out its little snap and flash of light."

AREQUIPA.

The Pike's Peak station was for a long time the highest in the world where meteorological observations were carried on, and the greatest height at which there is now anything like a mountain observatory is at the top of Misti, near Arequipa, in Peru. This is 19,200 feet above the sea, and has been established by means of "the Boyden Fund." Some years ago, a Mr. Uriah A. Boyden left a sum exceeding 230,000 dollars in trust for the purpose of astronomical research "at such an elevation as to be free, so far as practicable, from the impediments to accurate observations which occur in the observatories now existing, owing to atmospheric influences." The Trustees of the fund transferred the property to the President and Fellows of Harvard College, in order that the researches proposed by Mr. Boyden might be directed at the Harvard College Observatory. The fund has been employed for meteorological purposes as well as for astronomical research. In the first instance, a station near Lima, in Peru, was temporarily occupied, at a height of 6,600

feet. Next, owing to the remarkable clearness of the air at Arequipa, it was decided to locate a permanent station at that place. Land was purchased outside the city, and buildings were erected in 1891. Arequipa is situated about 80 miles from the Pacific Ocean, in a river valley, and the observatory is built on the crest of a hill overlooking this valley, 8,050 feet above the sea. Twelve miles away to the north there is a mountain called Charchani, about 20,000 feet high, always snow-capped; and ten miles to the north-east there is the dormant volcano Misti,

19,200 feet high. The latter mountain has been frequently ascended of late years, and, notwithstanding its great elevation, presents little difficulty to those who are accustomed to mountain-travel.

CHARCHANI.

Not long after the establishment of the station at Arequipa, the observers began to cast eyes on Charchani. This part of South America is well adapted to astronomical work from the extreme purity of the air. A black spot *one inch in diameter*, placed on a white disc, could be seen on Charchani from Arequipa at a distance of *eleven miles*, through a thirteen-inch telescope! It was decided to have a meteorological station on Charchani, and one

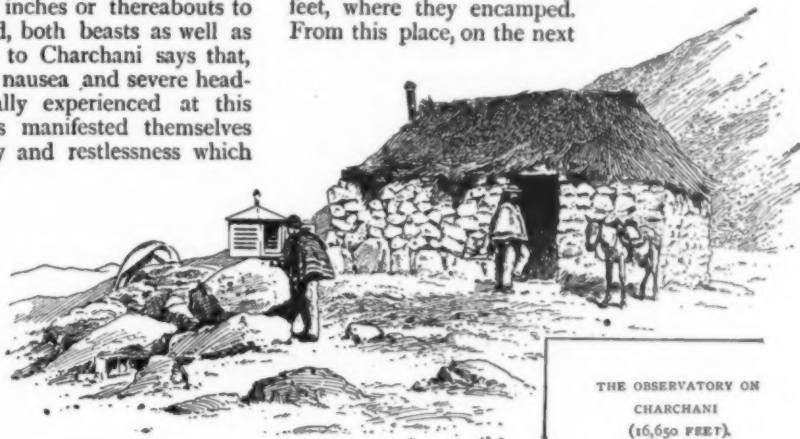
was established there in 1892-3, just below the snow-line, at the height of 16,650 feet. The position is so easy of access that mules can be driven right up to it. The mules, doubtless, if they could speak, would say that they do not like it; for at this height (16,650 feet), where atmospheric pressure is only about sixteen inches and a half, instead of the thirty inches or thereabouts to which we are accustomed, both beasts as well as men suffer. One visitor to Charchani says that, although he escaped the nausea and severe headaches which are generally experienced at this altitude, other symptoms manifested themselves "in abnormal excitability and restlessness which made sleep impossible, and by a lapse of memory as well as in a want of sequence of ideas." His rate of respiration, which at Arequipa was 20, rose to 25 per minute, and the pulse rate from 80 to 115.

The rainfall is small and the winds are light in this region.

At Arequipa (8,050 feet) temperature never descends to freezing-point, and the extreme range of the thermometer has been found to be only 40°-5° F. (79° maximum, and 38°-5° minimum). The highest velocity of the wind in 1891-2 was no more than seventeen miles an hour. On Charchani (at 16,650 feet) the lowest observed temperature was 13° F., and so far as one can judge from the published reports the extreme range of temperature is not great. Though dignified by the term "observatory," this Charchani station was on a very modest scale. The accompanying illustration renders description unnecessary. The instruments were placed in the louvered box on posts, and the contiguous hut was erected to shelter observers, if it was necessary to spend the night there. The ascent could be made on mule-back from Arequipa in eight hours. The observers appear to have done no more than pay the observatory an occasional visit, and although it was admitted that all the meteorological data which are desirable would have been much more valuable if obtained in the free air on the summit of Charchani, they failed to scale this easy mountain. The station is now abandoned, and another has been made on the top of Misti (19,200 feet).

Mr. Rotch, in the paper which has already been quoted, says that in 1893 Professor Bailey succeeded in placing self-recording instruments on the summit of Misti, and that "several times a month one of the observatory staff climbs the mountain in order to wind the clocks and change the register sheets, at the same time taking check readings of standard instruments. Breaks in the record occur, owing to unforeseen stoppage of the instruments, or inability to make the ascent at the appointed time." "It is impossible," he says, "for persons to remain at these stations." There does not appear, however, to be any "impossibility" in residing at the top of

Misti. From a relation of an ascent given by Professor W. H. Pickering in "Appalachia" for March, 1894, the organ of the Boston Appalachian Mountain Club, it is evidently an unusually easy mountain. The Professor, along with four others, rode on mules as high as 15,000 feet, and then went on foot to 18,440 feet, where they encamped. From this place, on the next



THE OBSERVATORY ON
CHARCHANI
(16,650 FEET).

morning, they reached the rim of the crater in twenty minutes. "The mountain," he says, "was certainly one of the easiest of descent that I have ever known. The motion was like skating, the loose stones rattling and sliding after one, and the finer particles following in a cloud of dust. Each step was between one and two yards in length, and I reached the base of the cone from the edge of the crater inside of fifty minutes. The *tambo* was reached half an hour later, and *I had descended over 5,000 feet inside of one hour.*" No such pace as this can possibly be attained on a mountain unless it is of the very easiest character.

MONT BLANC.

The difficulties in forming such "stations" as those upon Charchani and Misti are trifling compared with those which have been overcome in establishing the two existing observatories on Mont Blanc, one at the height of 14,320 feet, and the other on the summit (15,780). The former of these enterprises is due to a Parisian, Monsieur J. Vallot, and the latter to Dr. Janssen, Director of the Observatory at Meudon. M. Vallot is a mountain enthusiast, and in 1887 performed the unprecedented feat of camping under canvas on the summit for three days and nights. Until he did so, only one person had encamped there before, namely Dr. Tyndall, and his experiences were particularly unhappy. Both he and the whole of his guides were incapacitated by mountain-sickness, and they came down the next morning in a forlorn state, having accomplished nothing. This occasion is well remembered at Chamonix, and M. Vallot found great difficulty in persuading anyone to go with him. When they at last started he was accompanied by M. Richard and a caravan of guides and porters—in all, nineteen persons. So far as the commence-

ment of the ridge of the Bosses du Dromadaire¹ (that is, to about the height of 14,000 feet) they got along all right; but then M. Richard, who was not accustomed to mountain-walking, began to flounder. A little higher up one of the porters became incapable, and by the time the summit was reached M. Vallot himself was seized with vomiting and was obliged to lie down on the snow, exhausted. The porters, after having deposited their loads on the summit, were sent back to Chamonix, while MM. Vallot and Richard, with two guides, remained on the top during three days occupied in meteorological and other observations. Their experiences, which were detailed at length in the "Annuaire" of the French Alpine Club, were very curious. They found themselves entirely without appetite, and unable to eat. Even a cup of tea "produced a disastrous effect." On the third night, one of the

the two snowy humps which are called the Bosses du Dromadaire, at the height of 14,320 feet above the sea. Difficulties arose at the outset, for the Commune of Chamonix lays claim to the French side of Mont Blanc, and no buildings can be erected without consent. Permission was ultimately granted on rather harsh terms. The Chamoisards apprehended that M. Vallot might turn his establishment into a sort of *auberge*, which would be detrimental to their interests in the inn on the Grands Mulets, and stipulated that he should erect a Refuge as an adjunct to his observatory, at his own expense. This was to become their property, and they were to have the right of taxing all persons ten francs who stopped there for a night, half of the receipts being destined to pay for the maintenance of the Refuge, and half were to go to their lessee at the Grands Mulets for the injury



THE VALLOT OBSERVATORY ON MONT BLANC (14,321 FEET) IN 1893.

guides went out of the tent for a moment, and returned in a great state of alarm, saying that the air was full of electricity. Vallot went out to see, and says that from the tent, from the erection sheltering the instruments, and from himself, "a harsh rustling proceeded, caused by thousands of sparks. My hairs stood on end, and each individual one seemed to be drawn away from me separately. The sparks were felt all over the body; one couldn't remain outside without suffering; we were literally bathed in electricity."

The foundation of the Vallot Observatory was a result of this journey. At first, M. Vallot thought of having a cavern excavated in some of the highest rocks; but he abandoned this idea, and decided to put up a wooden chalet a little below the lower of

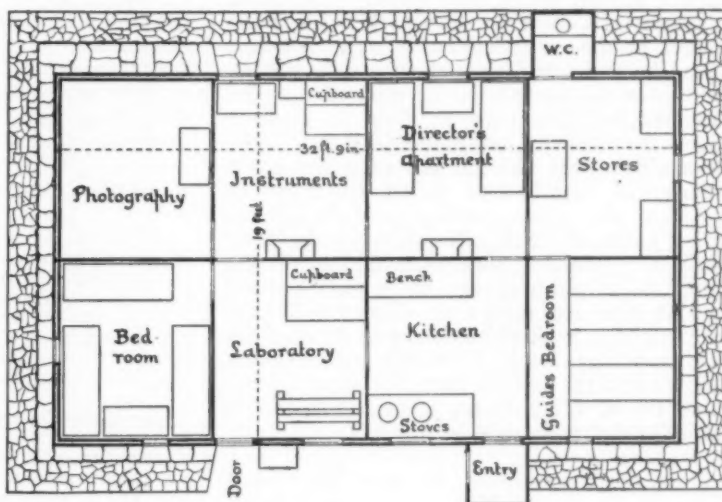
which it was supposed might be done him. On these conditions M. Vallot was allowed to erect his observatory. He established a Refuge to conciliate the Commune, and the Commune finds it impossible to collect the tax.²

The materials of the building were ready at Chamonix by the beginning of June, 1890, and then the more serious task had to be undertaken of their transportation to the height of 14,300 feet, for the larger part of the way, over snow or ice, on men's backs. One hundred and ten of the guides and porters had agreed to carry a load apiece up to the selected spot; but when all was ready the weather went to the bad, and rendered a start impossible; and when it improved the guides became occupied in conducting tourists. Still, by

¹ The names of places which will be mentioned will be found on the map of Mont Blanc, given at p. 619 of the present volume of the "Leisure Hour."

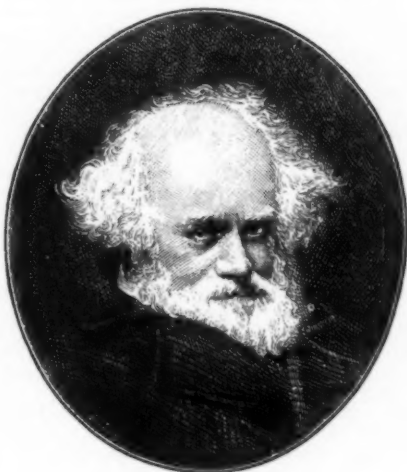
² In the first instance, the "Refuge" was a portion of the observatory buildings. Subsequently a separate hut was erected as a Refuge a few hundred yards away from the observatory.

the end of July, the building was erected on the position which had been chosen for it, on solid rock.¹ At first it was a very small affair, measuring about 16 x 12 feet, and 10 feet high, a portion of which was "observatory" and the rest "refuge"; but it has grown to the proportions shown on the annexed plan. The transport of the materials and their erection on the spot were far more onerous than the actual construction of the building in the first instance. Chamoniards consider 35 lbs. the maximum load for a man on Mont Blanc, and in all the details attention had to be given to that point. No large timbers or heavy weights could be carried up. During the week which was occupied in the erection everyone had to camp out on snow. Temperature descended to 15° or 16° below freezing-point in the tents, and there were the usual bothers with bad weather and mountain-sickness, which we pass over now, as they will presently recur when speaking about the Janssen Observatory on the summit.



PLAN OF THE VALLOT OBSERVATORY.

Dr. J. Janssen, the present President of the French Academy of Sciences, and Director of the Observatory at Meudon near Paris, visited the Vallot Observatory a few weeks after it was put up, to carry on spectroscopic observations. He was detained there several days by violent storms,



DR. JANSSEN.

but he ultimately ascended to the summit of Mont Blanc, and got back to Chamonix in safety. The journey occupied him from August 17 to August 23. He was struck with the advantages to science which might be expected from working in

¹ The position is marked on the map.

pure air, and on his return to Paris communicated an account of his journey to the Academy of Sciences, at the meeting on September 22, 1890. He concluded by saying, "I think it will be of the first importance for astronomy, for physics, and for meteorology that an observatory should be erected on the summit, or at least quite close to

the summit, of Mont Blanc. I know that objections will be brought forward as to the difficulty of erecting such a building upon so high a spot, which one can only reach with much trouble, and which is often visited by tempests. These difficulties are real, but they are not insurmountable. I cannot enter deeply into the matter now, and content myself with saying that with the means our engineers can put at our disposal, and with such mountaineers as we possess at Chamonix and in the neighbouring valleys, the problem will be solved whenever we wish." From that time until now Dr. Janssen has been more or less occupied in solving the problem.

In a very short time the necessary funds were subscribed by some of his wealthy and influential friends. Amongst his supporters were Prince Roland Bonaparte, M. Bischoffheim and Baron Adolphe de Rothschild, M. Léon Say and the late President of the Republic. The execution of the project was a work of much greater difficulty. There is no visible rock at the immediate top, and it was proposed to build upon the *snow*. This idea was received with almost universal incredulity. The general opinion was distinctly unfavourable. "The persons," said Dr. Janssen, "who were best acquainted with the glaciers of this great mountain considered that it was quite impossible to establish a building on the summit, such as would serve for observation and residence. They said, and with apparently much force, that the thickness of the snowy crust would prevent foundations being obtained in solid rock, and they would not admit the possibility of establishing the building on snow." Mons. Eiffel, of Tower fame, was taken into consultation, and declared himself ready to construct an

observatory on the very top of Mont Blanc, if a rock foundation could be found not more than fifty feet below the surface of the snow, and expressed his willingness to bear the cost of the preliminary operations. It so happens that rocks peep through the snow on three different sides of the summit, no great distance below it—small patches, scarcely visible from below. One, called *la Tournette*, is about one inch to the *right* of the summit in the engraving on p. 617. Another, named *les Petits Mulets*, is about a quarter of an inch *below* the summit in the same illustration. The third, called *la Tourette*, is on the opposite side of the mountain, and cannot be seen. These rocks which peep through the snow are either summits of *Aiguilles*, or points on ridges of *Aiguilles*. But it is exceedingly unlikely that the *highest* points of the *Aiguilles* are exposed. They are, in all probability, somewhere underneath the summit-ridge, which appears to be placed at the junction of three or more rocky ridges; and as the little patches of rock which do appear on the three sides are only 454 feet (*la Tournette*), 392 feet (*Petits Mulets*), and 171 feet (*la Tourette*) below the extreme top of Mont Blanc, there was at least a possibility that rock might be struck.

Mons. Eiffel committed the direction of this affair on the spot to Mons. X. Imfeld, a Swiss,



FREDÉRIC PAYOT IN WINTER DRESS.

who is well known as a surveyor, and as manager of one of the hotels at Zermatt. A more competent man for the purpose could scarcely have been found. Imfeld had a horizontal gallery driven into the snow, forty-nine feet below the

summit, on the French side (the side represented in the engraving on p. 617), and employed as director of the workmen Frédéric Payot, who is one of the most able and experienced of the Chamonix guides, and has ascended the mountain more than a hundred times. The report rendered by Imfeld to Mons. Eiffel gives a lively idea of the difficulties of the undertaking. "A wooden hut," he says, "which could be taken to pieces, and transported easily, was made at Chamonix, to form the entrance to the tunnel, and was intended to serve as protection to the workmen. It was divided up into loads, numbered and weighed. From the 10th to the 15th of August was occupied in arranging transport up to the Vallot Observatory," which place was made the base of operations.

August 13, 1891.—A first *caravane* started with part of the hut and provisions for the *Rochers des Bosses*.

August 14.—I went with Fréd. Payot and the rest of the porters as far as the *Grands Mulets*.

August 15.—We reached the Vallot Observatory at 9 A. M., and the summit at midday. I settled the position for the mouth of the tunnel, the direction of its axis; and with six workmen arranged the clearing away of the snow, to place the hut.

August 16.—On account of a "*tourmente*" of snow, no one could leave the observatory.

August 17.—The work done on the 15th of August was partly buried under the snow. It was restored by six workmen, and the tunnel was commenced. Advanced 5 mètres. In the evening, one of the workmen (Jos. Simond) came back ill from the summit. He had a frost-bitten foot, and several toes were without sensibility when pricked with needles. Our doctor, Dr. Egli, of Zurich, gave him the necessary care. Fearing consequences, he wouldn't entertain my suggestion that the man should be sent down to Chamonix.

August 18.—The workmen, discouraged by the illness of their comrade, and by want of space and coverings in the Vallot cabane, and bored by numerous visits of tourists, demanded a rise in their daily wages from 16 to 30 francs. After a long discussion, I offered 20 francs, conditionally on confirmation. One man stuck to his demand and was dismissed. The others remained and continued work in the tunnel. Advanced 5 mètres. At the distance of 16 mètres from the stake (at the mouth), a prune-stone was found.

August 19.—Very high wind. All the workmen went down to the *Grands Mulets*, to fetch portions of the hut which had been left behind by the contractors, and for wood to burn, and provisions.

August 20.—The workmen were driven back on the *Grande Bosse* by a very strong north wind, and could not reach the tunnel.

August 21.—Very great "*tourmente*" of snow. Impossible to get to the summit. The porters don't come up. Five workmen decide to go down to the *Grands Mulets*, to get food. Along with them went a tourist (M. Rothe) with his guide, and tie on to the rope of the workmen. Upon the *Petit Plateau*, an ice-avalanche fell from the top of the *Dôme du Goûter* on to the party, and killed the tourist and his guide. My workmen escaped with slight bruises, and went on the same evening to Chamonix.

August 22.—Violent storm. Could not leave the observatory. The porters don't come up.

August 23.—Snow falling. At 2 P. M. arrival of Fréd. Payot and five porters, laden with food and wood. They bring the first news about the accident on the 21st, and the information that the workmen are discontented, and have gone down to Chamonix, and won't come up again. As the porters who had arrived were not engaged as workmen, I directed Fréd. Payot to go down to Chamonix to procure fresh workmen. He left the observatory, accompanied by Dr. Egli and a porter, but they came back in half an hour on account of the violence of the "*tourmente*."

August 24.—Much new snow. Wind cold. In the afternoon I decided to try to get to Chamonix, along with

Dr. Egli, Payot, and a porter. Got the same evening to the Grands Mulets.

August 25.—Arrived at Chamonix at 10 A.M. In the course of the day engaged six workmen.

August 26.—The workmen went up with Fréd. Payot to the Grands Mulets.

August 27.—Fréd. Payot and the workmen, carrying provisions, went from the Grands Mulets to the Rocher des Bosses.

August 28.—Bad weather. The workmen couldn't get to the summit. I start in the afternoon with Dr. Jacottet,



PAYOT AND THE CABANE AT THE ROCHERS ROUGES.

of Chamonix, who wished to make an ascent of Mont Blanc, on which he had failed twice, and he offered to give his services gratuitously, in case of need, during the time he remained at the Vallot cabane.

August 29.—The workmen reached the summit. Advanced 5.3 mètres. One man was sent down to Chamonix ill from mountain-sickness, and another came back with a slightly frost-bitten foot.

August 30.—Fréd. Payot and four workmen continue the tunnel. Advance 5.4 mètres.

August 31.—Snow-storm. The summit is impracticable.

Jules Simond, and Jos. Charlet were unable to work (from frost-bitten fingers and feet, and mountain-sickness). They were sent down to Chamonix.

Dr. Jacottet unwell (inflammation of the lungs and brain), and I remained at the observatory to look after him, while Fréd. Payot and all the rest went to the summit, to fix up the hut at the entrance to the tunnel. About 4 P.M. the condition of Dr. Jacottet got worse (delirium). At 5.30 P.M. he lost consciousness, and he died in the course of the night, at 2.30 A.M.

September 3.—Conveyal of the corpse of Dr. Jacottet to Chamonix. Consultation with M. Janssen upon the information obtained by probing (sounding), and continuation of the same.

September 4.—By telegram to-day, you announce your intention of suspending the work.

September 4-8.—Examination of accounts, paying off guides, porters, workmen, etc.

The net result was that a gallery 96 feet long was driven, and in the whole course nothing more rocky was found than a prune-stone! M. Eiffel retired from the undertaking, but Dr. Janssen had the gallery carried on by Payot 75 feet farther, at an angle of forty-five degrees to its former course, still without finding rock, and he then decided to erect his observatory on *snow*, and on the highest point of the summit-ridge.

Two important questions, he admitted, required first of all to be elucidated. One was, Will the observatory, if placed on the summit snow, sink or swim? The other was, What movements are there to dread in this snowy cap? To obtain an answer to the first question an experiment was carried out at Meudon. A column of lead weighing 792 lbs., but only one foot in diameter, was placed on piled-up snow, brought to the density of that at the summit. The lead is said to have sunk in less than an inch, and Dr. Janssen considered this result encouraging. "As to the question of the movements," he said, "it was studied and determined by the installation in 1891 of a wooden edifice, which has now been two years on the spot." This edifice, which they term "the edicule," has now been in position for four years, but I do not feel that it has yet settled the "question." The little building is about six feet high from floor to roof, and a post at each corner is carried down six feet more. To instal it, in 1891, a hole was dug; the level of the floor was made to coincide with the level of the summit, and the snow was then

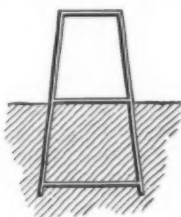


FIG. 1.



FIG. 2.

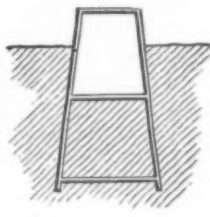


FIG. 3.

THE EDICULE.

September 1.—Fine weather. Along with Dr. Jacottet, at 9 A.M. we were on the summit. Photographed the panorama. Probed the rock of la Tourette, and also the Petits Mulets, and Rochers Rouges. Advance 1.8 mètres. One workman (Jules Simond) had his fingers frost-bitten.

September 2.—Early in day it was found that Jos. Simond,

filled in again. Its appearance then was that of fig. 1 in the annexed diagram. In 1892 it was noticed that the floor was beneath the general level of the summit, and that on one side the snow rose in a sort of bank to nearly half the

height of the hut (see fig. 2). On August 8, 1893, I visited it, and found that only 2 ft. 3 in. rose above the summit of Mont Blanc (see fig. 3). In July, 1894, I visited it again, and found it in much the same condition; but the snow had been recently trampled down, and, I imagine, a good deal had been cleared away. The level of the gallery is already more than 49 feet below the summit, and this is a significant fact, affording a practical demonstration that the snows at the top of Mont Blanc are constantly descending to feed and maintain the glaciers below. The summit in 1891 was not the summit in 1892, nor will that of 1895 be the summit of 1896. The height of the mountain, nevertheless, remains nearly constant by the accession of fresh snow. It is not the liability of sinking *into* the snow, but the strong probability that any building erected on the top will sink *with* the snow, which gives rise to apprehension about the stability and maintenance of Dr. Janssen's Observatory.

He is not, however, dismayed by this prospect,

the management of Frédéric Payot. By the end of the season about one quarter of the materials had been advanced to a little patch of rocks 750 feet below the summit, and the rest so far as the Grands Mulets. There they remained for the winter. The early part of 1893 was occupied in recovering the *depôt* which was buried under 25 feet of snow, and in bringing up the remainder of the materials. By the end of 1893, the building was erected on the summit, its heavier portions having been hauled up the terminal slope of snow, called the *Calotte*, by means of little windlasses, such as Payot is holding in the accompanying engraving. The building, however, was not completed until the end of 1894. When I visited it in July of that year it was more than half filled with snow, and two days of hard work were employed before it became tenable. At that time no instruments had been sent up.

Dr. Janssen has shown an energy, courage, and tenacity in the prosecution of his undertaking which would be remarkable in anyone, and are



EXTERIOR OF JANSSEN'S OBSERVATORY IN JULY 1894.

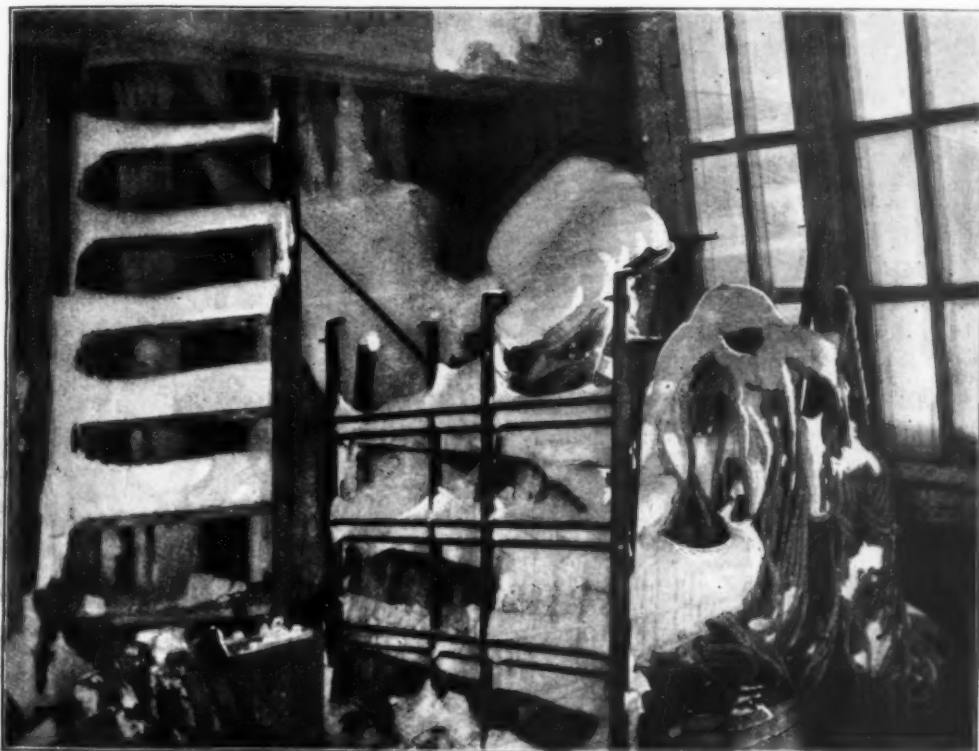
and has constantly pressed forward the building to completion. In the winter of 1891-92 the observatory (partly of iron and partly of wood) was constructed at Meudon, was taken to pieces and forwarded to Chamonix, and in the course of the latter year was transported up the mountain, under

doubly so in a man verging on threescore and ten, who is unable to climb a yard, and who is so badly lame as to walk with difficulty even on level ground. Twice already he has had himself dragged to the summit in the manner shown in the illustration at the head of this article; on the second occasion

economising the strength of his men on steep places by using the windlasses which had already been employed to haul the materials.

The time has now arrived for the installation of instruments. The principal one that is destined

on the summit of Mont Blanc during winter has been unknown. Last winter, however, thermometers were placed in the interior and on the exterior of the observatory, and this year it has been found that the former registered $-35^{\circ}2$ Centigrade and the latter -43° C., as the greatest



INTERIOR OF JANSSEN'S OBSERVATORY, JULY 1894.

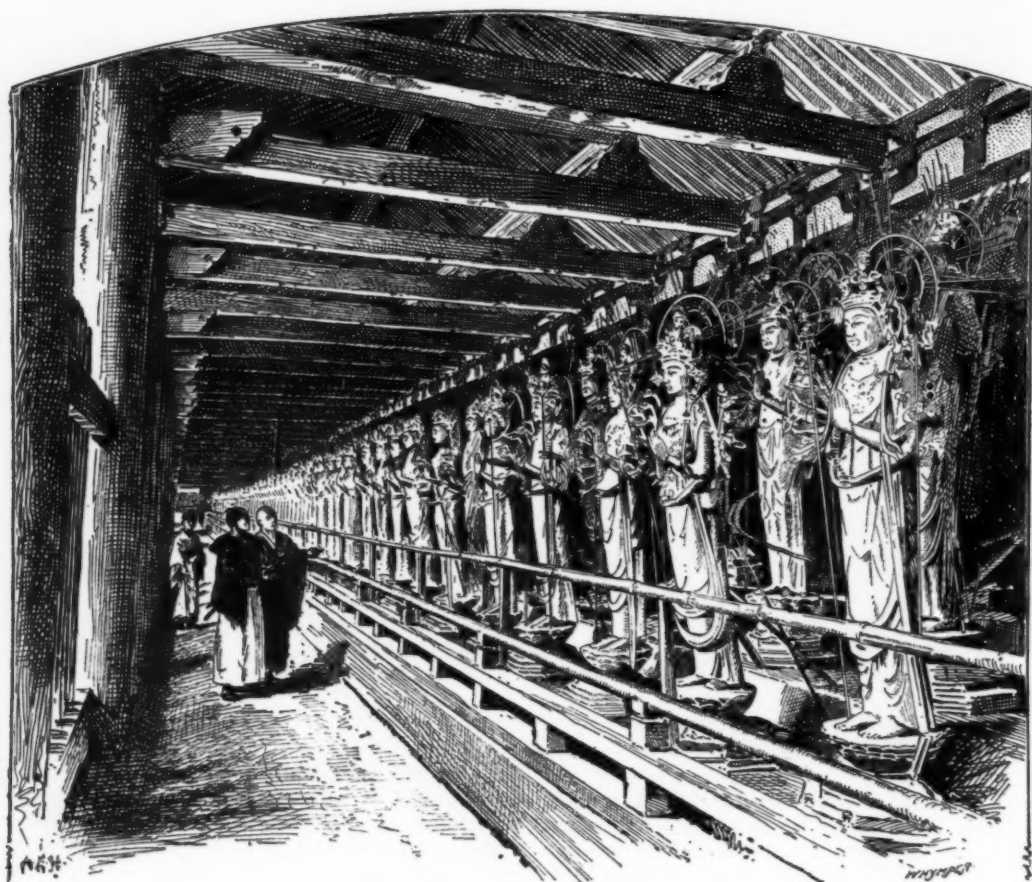
for the observatory is termed a *Météorographe*, and has been constructed by Richard of Paris, at a cost of £750. It registers barometric pressure, maximum and minimum temperatures, the direction and force of the wind, etc., etc. It is put in movement by a weight of 200 lbs., which descends about 20 feet and is calculated to keep everything going for eight months—the length of time during which it may sometimes be left to itself. In introducing his huge instrument to the Academy of Sciences on August 13, 1894, Dr. Janssen said, "I do not conceal from myself that, notwithstanding the minute precautions which have been taken, there must be some degree of uncertainty about the result." One possibility need only be mentioned. The barometer that will be employed will be a mercurial one of the Gay-Lussac pattern. Until now, the minimum temperature that occurs

degrees of cold. These temperatures are respectively equal to $-31^{\circ}36$ and $-45^{\circ}4$ Fahrenheit. The former is dangerously near to the freezing-point of mercury (-40° F.), and if temperature in the interior of the observatory should on some future occasion fall a little lower than it did last winter the barometer will cease to act just at a time when it would be particularly interesting to have it in operation. The installation of this instrument and a large telescope will be amongst the most important pieces of work which will be undertaken at the Mont Blanc Observatory this year. Perhaps before these pages are published the great *Météorographe* will be in action, and it is to be hoped that such results will speedily ensue as will be commensurate with the thought and labour which have been bestowed upon this difficult enterprise.

RAMBLES IN JAPAN.

BY H. B. TRISTRAM, LL.D., D.D., F.R.S., CANON OF DURHAM.

IX.



SANJŪ SAGENDO, KIOTO. (33,333 IMAGES.)

VERY different from our passage-boat to Tokushima was the sumptuous passenger-steamer on which, a few days after our return from Shikoku, we embarked to pass again down the lovely Inland Sea, up which I had sailed a few weeks before. Our object was to visit the northern and central portions of the island of Kiushiu. By a most convenient arrangement the passengers were expected to be all on board the *Saikyo Maru* in the evening, so that we could loose from our moorings at daybreak, and lose none of the scenery. In the most perfect of weather we steamed down the Inland Sea, amidst a prospect simply peerless for calm, rich, quiet beauty. All that sunlight, a silver sea, countless islets on both sides, mountains clad with timber from the shore to their summits, villages in rapid succession, some half-buried in

woods, others fringing the shore, innumerable fishing-boats and junks, amidst which the steamer carefully threads her way—all that these can give of beauty are here. Not majestic or grand, but delicately, gracefully, sweetly beautiful. We were reminded that sometimes there is a reverse to the medal, as during the afternoon we passed the wreck of a large English steamer, which had gone ashore on an islet eight days ago, and was now lying on her side, a hopeless wreck, since there was no available machinery within reach to raise her. Amongst our fellow-passengers was the ubiquitous "Lloyd's" agent, whom we dropped in a gig on his mission to look after the salvage, and many were the condolences he received on his departure for the Robinson Crusoe's island, where he would probably have to remain a fortnight alone amongst

the fishermen. He was, however, well furnished with provisions, and light literature for solitary hours was showered upon him as he left the vessel.

The sun did not set until we had reached that part of the Inland Sea the prospect of which I had enjoyed in daylight on my former voyage. We were due at the Straits of Shimonoseki in the early morning hours, and here the steamer was to drop anchor until daylight, this being her only point of call on her way to Shanghai. The night was too bright to allow me to leave the deck, where I could mark the clear dark outline of mountains and islands over the phosphorescent sea, and that with most agreeable companions. The captain, a cultured American, who had kept his eyes open all over the world, and the chief engineer, an observant Scotchman, who had spent years in Yezo as his headquarters and took a deep interest in the Ainu aborigines, kept watch. The engineer was a devoted admirer of Mr. Batchelor, the Church Missionary Society missionary to the Ainu in Yezo, and it was refreshing to hear his high opinion of the missionary staff and of their work in Japan.

About 2.30 A.M. we anchored in the narrow strait of Shimonoseki, which locks the south-west entrance of the Inland Sea. To the north, on the main island, is Bakan, well defended by earthworks, and Mōji, our point of departure in Kiushiu, on the other side. We remained on board till dawn, when we were supplied with coffee and landed in the ship's boat at Mōji. A portion of the North Kiushiu Railway had just been opened, but the station was not yet completed; and finding ourselves an hour before the time of starting, we deposited our luggage on the planks and set out to explore the village in search of food, not very successfully.

A journey of three hours through a rich undulating country brought us to Hakata. The line generally skirted the seashore. We passed Kokura, a bustling seaport, and garrison town, and after that a number of collieries, recently opened, for this is the northern extension of the great Kiushiu coal-field, which stretches eighty miles southward. A Japanese company is making arrangements for an enormous development of these coal-mines, which have hitherto been chiefly worked by drifts. Only the upper seam has as yet been worked at all, but shafts have here been sunk, and several lower seams have been reached, yielding steam coal of the best quality. The Japanese fully expect to monopolise the coal trade of the Eastern Pacific, as the seams can be worked so close to some of the best harbours, whilst the abundance of labour and its low price will enable them to compete successfully, not only with England, but with Vancouver. As yet coal hardly can be considered an article of household consumption in Japan, its home use being entirely confined to manufactures. The natives so far show no disposition to apply it to domestic purposes, and prefer the more costly wood charcoal, which is a much less dangerous fuel in their inflammable wooden houses, while their paper walls and many chinks remove all danger of asphyxia. Still, it is to be hoped that mineral coal will be adopted for domestic purposes before the forests of the country,

to which it owes so much, not only of its beauty, but its fertility, be too much depleted. To this last-mentioned danger, however, the enlightened Government seems to be already alive, and sets an example which we might well follow at home, by locking the door before the steed is stolen. In India we have been barely in time to arrest the mischief which the denudation of timber has already caused in the desolation of more than one of the West India Islands, and which there are ominous signs may ere long overtake great parts of the North American continent. In Japan the Government is following the German method of systematic replanting.

We left the railway at Hakata, a large town separated from Fukuoka, our destination, only by the Nakagawa or "Middle River," spanned by bridges. We rode through both towns to the hospitable house of our host, Mr. Hind, who, with Mr. Hutchinson, represents the Church Missionary Society in this great town and district. Fukuoka itself has a population of 53,000, and is a military centre, as in case of war, whether with China or Russia, the Straits of Shimonoseki would be a vital point either to hold or to attack. The far-seeing policy of the Government has massed in the different old castles and barracks within striking distance of the Straits a number of skeleton corps which can easily be filled up. Fukuoka, though not much talked of, contains really many objects of interest. Very soon after our arrival Mr. Hind took us to the top of a hill at the extremity of the city, whence we had a commanding view of the bay, and of the crescent-shaped city fringing it for four miles. The sea with its boats and shipping looked almost as populous as the land. Though flourishing and beautifully clean, the streets are rather too modern to be very attractive, excepting for their shops, which are well supplied, and in which I was able to pick up some interesting genuine old bronzes.

The Palace and grounds of the old Daimios skirt the farther side of the city, and contain many objects of interest. The public park, which is formed out of a part of the ancient Daimios' domain, is studded with noble pine-trees, extending to the shore. Adjoining it is the mausoleum of the old Princes of Chikusen, quite unique in Japan and unlike anything I ever saw elsewhere. Like the park, it is full of magnificent pine-trees, towering above the maples and other trees, which they overshadow. Among these, forming a labyrinth, are dropped the megalithic monuments of the family, sometimes placed on artificial mounds, sometimes encircled with evergreen trees, and sometimes on the summit of a taller mound, reached by a flight of steps. The tombs of the male members of the family have square shafts on circular bases, and are of great size and covered with old Chinese characters. Those of the females have circular shafts.

This family, one of the most powerful in former times next to the Shogun, has played a conspicuous part in the history of Japan. They were the leaders of the Christian faction in the time of Spanish influence. The Daimio Kuroda Nagamasa, in A.D. 1623, is frequently mentioned in the Jesuit chronicles. The inscription on his tomb is very long, and the tomb itself consists of three trun-

cated columns placed one above the other, each on a circular base. A massive pagoda roof shelters it, giving it very much the appearance of a temple. I much regretted I could not read the inscription, nor ascertain what his Buddhist descendants have said about his Christianity. The grounds are kept strictly private, and are in beautiful order. We were only admitted by special favour, and enjoyed wandering in the maze of thickets till sunset. The family is one of the few who have retained considerable political influence in new Japan, and the last Daimio of the Kuroda family has been created an hereditary Marquis. His eldest son is a graduate of Oxford, but instead of following the

his post and went with his family to Nagasaki, where he sought instruction from Archdeacon Maundrell, and was ultimately baptized. He then entered the little college there, at his own charges to be trained as a catechist. He never said a word about his means, but lived on his capital till it was exhausted, and it was only when he was utterly penniless that the fact came out. He has proved himself an admirable man, and it was understood that he was to be ordained as soon as the congregation were able to guarantee their part of his stipend.

The other catechist, who works the neighbouring out-stations, was a bank clerk. Having acci-



A FLOWER-STAND IN THE STREET.

traditions of the family history is a prominent anti-foreigner and anti-Christian.

I cannot leave Fukuoka without a word on the infant Church in that district, as we spent two Sundays, and on the second had the rare privilege of assisting in the formal consecration of a native church, built almost entirely by the people. I was especially struck by the two catechists whom I met, and one of whom has been since ordained. His history is interesting. By birth a gentleman, he was originally a samurai or retainer of the Satsuma clan. After the abolition of the feudal system, he received as compensation a sum of about \$400. He was then a school-master. Hearing something of Christianity, he became so much interested in it that he resigned

mentally heard a catechist, he was led to seek further instruction, and on his baptism was dismissed from the bank for having become a Christian. He was in absolute destitution for a time, but refused all help from Christian friends, lest it should be said he had gone over for what he could get. He was reduced to support his family by cleaning out and taking care of the Government schools. Mr. Hutchinson, however, soon found out his position, and, as he was a man of education and a gentleman, was able at once to employ him as a catechist, in which post he is invaluable. It is interesting to know that the manager of the bank where he once was is now a trustee and churchwarden of the native church.

Another case worth mentioning is that of Mr.

Hutchinson's cook. He was a strong Buddhist, and was keeper of the Sailors' Home at Nagasaki. He was led to think that there must be something in Christianity by noticing the lives of some of the sailors there, whom he observed to gather in a corner for reading and prayer. He argued there must be something in this that made these men so different from the others, and therefore, to get instruction, came and offered himself to Mr. Hutchinson as his servant, and insisted upon accompanying him when he moved from Nagasaki. He has been the means of bringing all his kinsfolk into the Christian fold.

I was also introduced to the oldest Christian in the congregation, and one of the most earnest. He is a blind man, who gets his living by hawking halfpenny newspapers in the street. He is called the father of the new church, because about two years ago he said at a prayer meeting: "We ought not to be content to worship in a hired house; we ought to build ourselves a church. I will undertake to give \$30 in two years for the purpose. What will others give?" This was indeed an enormous sum in a country where a working man earns \$3 a month. A shopkeeper exclaimed: "If he can give \$30, I must give \$50"; and others followed suit. So \$800 was raised, and the church was built.

The following Sunday was a day much to be remembered in the history of the infant church of Kiushiu. Bishop Bickersteth had arrived in the evening for the consecration of the new church, which by working night and day was completed—a feat that seemed hopeless a few days before. The matting was all down, the seats up (for they determined to have seats in their new church, a foreign fashion which is creeping in), the windows were all in, as the procession, consisting of the church committee, catechists from town and country, three clergy and the bishop, entered and walked up the church. There was a crowd, as there would be elsewhere on such an occasion. Many non-Christians were present, among them several officials from the Kencho (Government offices), and some leading merchants. The men were on one side, the women on the other, but soon the men overflowed into the ladies' seats. Almost all the men were got up in European fashion, frock coats predominating; but I was glad to notice that there was not a single female, whether of higher or lower rank, in Western costume; nor did I ever during my wanderings meet a woman in any but the national dress. We can only hope that, warned by the mean appearance of the other sex in the unbecoming habiliments that it is fashionable to adopt, the ladies' style will never change. The ceremonial seemed to be exactly as at home: the petition for consecration, the lawyer's part, and the handing and signing of title and trust deeds, were all duly performed at the communion table.

While speaking of the consecration, I forgot to mention the ceremonial connected with the building, which is exactly the reverse of the Western custom. We lay foundation stones. In this country, on the contrary, buildings are always begun by setting up the roof-tree, and then com-

pleting the whole roof supported by a wooden pillar at each angle, from which they build the wooden walls downwards, having a shelter under which to work. As soon as the ridge of the roof is fixed, and before the rafters have been attached to it, in the centre of the beam a hole is cut in which the bottle of documents and coins are deposited with as much ceremony as amongst ourselves. When I first noticed this amusing contrast to our ancient Western custom, I was naturally led to associate it with the fact that no trace of Freemasonry whatever has been found in Japan, where, the building material being exclusively wood and not stone, there was no scope for those operative masonic traditions which are so interwoven with speculative Freemasonry.

The situation of the church is certainly the choicest in Fukuoka—adjoining the large Post Office buildings, facing the river, with the wide roadway of the quay in front, lined with barges and sampans, and close to the bridge which unites the two towns. The porch has granite pillars, and is at the south-west angle of the building, surmounted, as are also the east and west gables, with the cross in a circle. The fine granite font was the gift of two members of the congregation.

Early on the Monday morning we proceeded on our way by rail to the station for Dazaifu, one of the interesting historical sites in the island. Having deposited our luggage, we took kurumas across the plain to the foot of the hills where Dazaifu is situated, a most interesting old place, the seat of the government of Kiushiu two thousand years ago and more. The island used to be a dependency, only nominally subject to the Mikado, who appointed the Governor-General, and was not really incorporated in the empire until A.D. 1338.

The temples here are the most ancient in Japan. One of them is dedicated to Tenjin (*i.e.* heaven man), the name under which a great ruler and scholar, Sugawara, has been deified. In his day, 900 A.D., the governorship of Kiushiu was looked upon as a banishment and disgrace. It was the post to which illustrious or powerful men who might have offended the Mikado were relegated. Tenjin is worshipped as the God of Calligraphy. In front of the temples dedicated to his honour is generally placed the figure of a recumbent cow, in accordance with the tradition that, having no horses in his exile, he used to ride about on a cow. His temple at Dazaifu is approached by a long avenue and a torii (*i.e.* gateway) of bronze, of a size such as I saw nowhere else. The avenue is flanked by splendid bronze statues of dragons, lions, and cows, larger than life-size, and some of the finest camphor-trees I ever saw. The temple itself was more striking from the evidences of its antiquity than its beauty, and in the court-yard in front of it were again many bronze figures of cows, lions, and owls. The priests were much pleased for a fee to show us the relics and treasures of this temple, the swords of many historical characters by famous makers, some a thousand years old; manuscripts claiming to be fifteen hundred years old; the original holographs of one of the greatest poets of Japan; bronze statuettes of Confucius and his chief followers, brought from China in 630 A.D.;

and many choice specimens of ancient lacquer. In fact, the sacarium of this temple was simply the treasure-house of an antiquarian and historical museum.

We walked on a mile or so farther to visit a still older temple, somewhat dilapidated, but with yet older relics than the other, amongst them the metal mirror of the first Emperor of Japan, B.C. 7, of unknown date, and some ancient lacquer work. It was an exercise of patience to wait for the exhibition of the historic swords, which had more wrappings and cases than the mummy of an Egyptian monarch. Seating himself on the ground after opening one coffer and then another, the priest would take out the long package, enfolded in marvellous wrappers of faded silk embroidery, tied with broad ribbons in knots which seemed to have some mystic meaning, and it was not until after some half-dozen of these covertures had been successively unfolded that the sword in its elaborately inlaid sheath was revealed.

The temple of Kwannon, the Goddess of Mercy, not far off, was well worth a visit, as it also possesses a number of interesting relics. In the centre of the building is a colossal figure of Kwannon, with two other smaller yet colossal statues on either side, all three gilt, or rather, if the priest's statement be true, covered with thin gold plates. If so, they must be of fabulous value.

A walk of two miles more took us to the site of the old court-house and palace of Dazaifu. Little now remains of the old capital of the island except the granite bases of the columns of the building, and the colonnade leading to it, but its shape and outline can be clearly traced. It reminded us, on approaching it, of a Druidical circle. We had a hurried walk down to the nearest village, where we were able to hire kurumas, and caught the last train towards Kumamoto, our bourne. The line was not yet opened, and the train deposited us fifteen miles short of our destination. When we reached the terminus—it could hardly be called a station—no kuruma man was willing to take us on, as it was too far and too late. However, we persuaded some at last to convey us at least to the first village. Here we were set down in the road in front of a tea-house, and certainly the poor fellows who had brought us deserved their fare, and were quite incapable of going farther, for when we engaged them they were, so to speak, return empties, having done their day's work. There seemed no help for it, so we sat down on a mat in the tea-house, resigned, if necessary, to spend the night there, and made a meal as best we could of tea and sugared beans. At length two villagers, seeing the chances of a stiff fare, presented themselves and agreed to take us on. It was a pity to lose the rich scenery, but we had time before sunset to halt for a visit to the fine monument erected on a mound of the battlefield where the Satsuma rebellion was finally crushed. This was, in fact, the Cullogen of Japan, the last struggle of the clans and feudal independence against centralised government and the new *régime*. It had lasted for several years, and was finally crushed in 1877.

Kumamoto, with its population of 60,000, is the most important military centre in Kiushiu. This it owes chiefly to the very commanding position of its ancient fortress, which is equally important

under the conditions of modern warfare. Like the castle of Nagoya, it has happily escaped the ravages of the iconoclastic fever of twenty years ago, and next to it is perhaps the finest relic of the feudal times. I may best describe it as an inland Gibraltar, standing on a rock precipitous and unassailable on three sides, and commanding not only the whole town beneath, but the surrounding country. It is now to Kiushiu what Osaka is to the main island, the artillery *dépôt* of the country, and admission to the fortress is strictly forbidden except under special circumstances. I was fortunate enough to see the horse-artillery practice on a field day, and although the horses did not seem comparable in breeding to our own, yet I am quite sure that the rapidity with which the evolutions were gone through, and the promptitude with which the guns were limbered and unlimbered, would not have discredited the best European troops. This wonderful castle was built by the Kato, conqueror of Korea, nearly four hundred years ago, but is chiefly celebrated now for the spirited defence which its small garrison made in 1877 against the Satsuma insurgents led by their hero Saigo. He was the champion of the old system, and though he had been foremost in assisting to abolish the Shogunate and draw forth the Mikado into real authority, yet he was determinately opposed to all the modern innovations, more perhaps to the abolition of feudalism than to the recognition of foreigners. He had rallied about twenty thousand young Samurai of the class to whom the new institutions meant ruin, and so unprepared were the central authorities then for resistance, that, probably, had he marched straight to Tokio, he would have carried all before him. His one and fatal mistake was that, instead of being content with masking Kumamoto, he wasted weeks in attempting to reduce it by siege, and thus gave the Government time to collect their forces at Fukuoka. The siege being raised, the gallant Saigo, after several struggles, being finally defeated, when all was lost at Kagoshima, got a friend to decapitate him, and thus terminated the last effort of old Japan.

The mausoleum of the old Daimios is full of interest, though on a much smaller scale than the one at Fukuoka. One of the Daimios in A.D. 1600 was a well-known Christian, but his descendants have given him a Buddhist epitaph on his tomb. The gardens of this old family are now the public park of the place, quaint and artificial, with lakes and mounds, and the azaleas just past their full beauty. The town has one feature not common in Japan, that all the streets are more like boulevards from the rows of trees planted down them. Almost the whole city having been burnt at the time of the siege, opportunity was taken to treat the place as was old London after its great fire. Kumamoto is an important educational centre, with a large Government college and very extensive buildings. The Professor of English, a Canadian fellow-countryman, who has since left, most kindly showed us over everything, and especially the museum, where I picked up some information, though I was sorry to find that the authorities had not yet learned the importance of noting the localities of their specimens.

A QUESTION OF FAITH.

BY L. DOUGALL, AUTHOR OF "WHAT NECESSITY KNOWS."



THERE IS MONEY TO BURY BOTH OF US IN ONE GRAVE.

CHAPTER XV.

HARVEY had retired within his own sitting-room, a dingy place, one in which he had never attempted to spend an afternoon before, one in which none but a disappointed man would have attempted to spend an afternoon, and it was only midday.

Harvey realised that he had been ill-used. He had confided in Knighton; he had certainly had no reason for doing so but the complete respect for and trust in him which he felt. He might, of course, have perceived sooner that the taciturn manner was no sign of reciprocal trust; but he had assumed that to be merely an eccentricity, and now— Well, his eyes had been opened. Knighton had perhaps done him no real disservice; there was no harm perhaps that he could do; but he certainly had not helped him in any way. Knighton had not used him fairly. Knighton was not the man he thought he was. Then, Alice had certainly not

acted kindly or honourably. She had given him to understand that her heart was disengaged, that she would give it to him if she could; now it appeared that she had only been playing him off against Knighton, who was of course incomparably the greater catch if she could get him; and in the matter of this secret, which Knighton, it seemed, had been made privy to, Alice's conduct could hardly have been worse; she did not even attempt to justify it; she did not care for her suitor's good opinion in the least. Of what use was it to care for a woman who did not wish to be cared for? to attempt to love a girl who was indifferent to even the ordinary approval of her actions which most women desired, not from a lover only, but from everyone?

When he got to this point in his surly meditation, Knighton himself appeared, to pay a friendly visit.

"I hardly expected to find you in," he said. "It is at Norcombe House that you are at home; but as I was passing here I looked in."

Knighton spoke of the political situation. The Prime Minister had resigned; a new one had been appointed; the crisis was pathetic and dramatic, and fraught with grave issues; no Englishman could help being interested. But Harvey lacked zest in the discussion; he felt no impulse to be particularly agreeable. At last the other changed the topic.

"You have seen Miss Bolitho to-day?" This was said with a benevolent smile. Evidently he thought that there was one subject that would not fail to interest.

But Harvey had not time to answer with the cold indifference he was prepared to assume before there was a sound as of a second visitor, quick footsteps outside, quick footsteps across an outer room; and while they listened, each thinking he knew the step, the landlady flung open the door and Alice Bolitho stood on the threshold.

"Come! please come! I want help." Then, seeing Knighton, she appealed to him. "I am glad you are here; I want you."

She turned and, as quickly as she had come, went out of the house again; by the time the two men, making exclamations to each other, had got themselves into the open air, they saw her hurrying obliquely across the heath. It was a minute before they came up with her.

It was a grey day. The smoke of the heather, that had been burning for some days, dimmed all the air; here and there on the hills near and far great plumes of smoke rose where the burning now was, and under it, in some cases, the red flame could be seen. Their bit of the moor was deserted, cold and murky.

"For heaven's sake, Alice, tell us what is the matter!" The appeal was Harvey's. He stood still to make it by way of forcing her to stand still to answer.

Alice stopped a moment, turning to them, but the difficulty of making any headway in a perplexing explanation kept her silent, lips parted, eyes clear and eager, her colour high with the wind; she only looked her impatience.

"You are in haste; you can speak as we go," said Knighton.

"There are two men living in the cottage that is farthest from old Gor's." Alice spoke breathlessly in short sentences as she walked on. "They have been hiding there. One of them has done some crime. He was a Nihilist. I don't know what he did; but he was nearly caught, so they hid here. He was ill and going to die, anyway. They were only waiting till he died, and now he is dead. I am afraid the old man is going to die too, but he says he wants to speak to a magistrate—" She turned to Knighton.

Harvey was saying now that he had come upon these men last night, that he thought they were tramps, putting up for the night with the old witch. Knighton spoke at the same time.

"You have been giving charity to them for some time?"

She stopped now for a moment of her own accord. She looked down as she spoke. "He caught me in thecombe one day. I thought he was mad and was going to kill me, and he made

me—made me promise to keep the secret and give them food."

"Do you mean to say?"—Harvey spoke in irritation—"that you have been giving charity to one of these sneaking Anarchists because of a promise he extorted from you by force?"

They were all three walking again through the growth of heather. The skirt of Alice's gown brushed its brown seeds heavily.

"And this is the secret that has made us all miserable?"

Harvey, having received no answer to his former question, asked this one less boisterously, but not with less irritation.

"If it has made you miserable, now that it is explained I hope you will be happier." In a moment she spoke again to Knighton. "The old man is not a criminal. He is dying, I think; but you will make nothing of him by looking like a policeman."

They all came suddenly down upon the hovels. Old Gor was standing, leaning upon her stick, near the door of one which was not her own. Alice went into it quickly, and the two men, stooping as they entered, followed.

At one side, on a rough table loosely constructed of boards, lay something that appeared to be a corpse, covered entirely by a woollen plaid spread like a sheet. On a sackful of straw, on the wooden floor near it, crouched an old man dressed in ulster and muffler, as it seemed for warmth. He had been sitting on the sack with his feet on the floor, and fallen over; but when they came he sat up, holding to the edge of the table with one hand. His face and hand were so thin that it looked as if the life within him was the life of a spirit making use of this attenuated frame, rather than of a living man. His eyes, bright and glassy, singled out Knighton at once; but when he essayed to speak he was obliged to beckon with the other hand that, even in that small room, they should come nearer; and they all three drew very near.

His words were only a hoarse whisper; he spoke to Knighton. "It concerns no one now to know who we are. My boy, who had the dogs upon his track, is dead. If I live, they can put me in jail, or in the workhouse; if I die (and the old witch out there says that I am struck with death), there is money to bury us in the one grave, and money to repay the young lady there for the food she has given."

He fumbled in his breast.

"What is your name?" asked Knighton sternly.

The old man only tendered him a small silken purse with shaking hand.

"I want to say to you," the hoarse whispering continued, "that that young lady is innocent of all knowledge of us, but that I compelled her in fear of death to swear by the Holy Catholic mysteries that she would bring us secretly such things as the son I loved might eat and die upon with less pain than the pain of starvation. Young ladies should have a fair name, sir, a fair name. I am an old man, so I saved my breath to tell you this."

Knighton took the purse; he did not demand the name again at once.

"Ask him if there is nothing we can do for him

—write to some one, tell some one, something he may wish to have done *after*." Alice spoke urgently to Knighton, and he felt surprised that, in her womanly notions of what was fitting at a time of death, she should not grasp the case and see that this man had cut himself from all links to the world.

The sick man could not but hear her words.

"The man that dies without a name, young lady, makes no bequest, and leaves message for none." He looked now at Knighton; with Knighton it apparently gave him some faint pleasure to talk as with a fellow. "The investments of such an one lie unclaimed; the newspapers say he is lost; and the next day the world has forgotten him. But"—he examined Knighton with his eyes—"if you have a son live in his world, and make merry with him; for I sat at my books, and I made money. It was all for the boy, and one day I found that he had been led by devils to the gate of hell; it is at that gate we die together. May God save us from entering in!"

"Do I understand that your son belonged to some revolutionary society?"—Knighton had taken out note-book and pencil.

"He lies before you," whispered the old man sternly; "ask him what you will."

Knighton was peremptory, yet seemed to feel the futility of his investigation.

"You yourself offered to take this lady's life, did you not?"

"Yes; did I not tell you?" The whisper broke now into a clearer voice, stimulated by angry excitement. "Did I not tell you that to the very door of hell I had come with the boy? But, think you, when I brought him here (because I had seen the place once on a summer's day, and thought that a knave might find hiding), was it the thing I desired to draw the eye of the law to the very place by another crime? She repeated the oath when I only threatened to throw her over the rock. I could not have done it, for my own sake and his; but I threatened—I threatened a direful death. The gate of hell! the gate of hell! Do you think I did not see her after, as she swooned with fear of me? Day and night before my eyes I saw her! It was all to keep the lad with me a few days longer, and let him know before he died that his father's heart was all his own. They do not know that, our sons; they think us hard."

Knighton stood still and stern. His detestation of the very name "Anarchist," his indignation at the coercion of Alice, his annoyance to find that these men could hide themselves so well and so long, as it were under his eyes—all this, appealing to the more habitual motions of his mind, almost concealed from him what pathos there was in the squalid scene. For they were squalid, these two—the unseen corpse, draped with a pall, stained and soiled, and the old man, unwashed, uncared for, with garments

smeared, no doubt, in his clumsy feeding of the sick.

Harvey took Alice by the arm. He was full of compassion now, but quick to perceive the revolting details of the place. "This is no place for you," he said gently. "There may be infection; but in any case it will make you ill." He tried to draw her outside by force.

She moved with him a few steps, mechanically, but turned again, and, before they could stop her, stooped to lift the arm that, clinging to the rude



ALICE BOLITHO STOOD ON THE THRESHOLD.

table, was the only support of the white, dishevelled head. The head, that had sunk upon the arm, was raised fiercely, as if in defiance of a stranger's touch.

"I will help you to lie down, and make you comfortable," she said, with that gentle authority which is the true nurse's instinct.

But that she had tried to take his hand from the table on which his dead lay roused all the petulant opposition of nerves that were diseased with a long anguish. With a weak access of temporary strength he clung to the rough table he had erected, kneeling beside it, embracing with one arm the support that upheld it, and laying his face on the shawl that covered his son.

"The gate of hell!" he whispered hoarsely. "You and I, my son." His head sank lower.

It was Alice who stooped, trying to hold him. Knighton put his hand on her shoulder to push her away.

"We will lift him," he said.

"My son! my son! You and I together." The words were delirious. "And may God, Who is a Father—" the words ended in a long, low shriek, that told that the fire of fever had suddenly blazed in the veins.

Old Gor came in. It was she and Alice who put the dying man back upon the wretched bed; both the men were engaged in trying to get Alice away. It appeared to them that, if they could have got past her, they would have done what she did; but possibly this was not the case. In a little while the moan of the sufferer was quiet once more. By this time Harvey had run with all speed back to the house in which he lodged, which was the nearest, to fetch those who would stay with the sick man. "Alice must be got away," he and Knighton had said to one another; and then there were doctor and priest to be fetched.

Knighton still stood just outside the door of the hovel. He regretted that he had not made more insistent inquiry for a name that it appeared so necessary to have. His mind wandered far and wide over the kingdom, through all the late annals of crime which he chanced to have read, but he recollected nothing that threw light upon this unhappy case.

When Harvey and his sturdy landlord came, they lifted the plaid from the dead man's face for a moment, and saw that it could only be in his father's eyes that he was still a boy. He was, it is true, young, but in full manhood; he looked as if he had never had health and had been long wasted by disease.

The father lay unconscious, muttering in fever, but muttering no coherent word that was to the purpose of those who for a few minutes listened anxiously. The man who had arrived latest upon the scene would stay with him; Knighton was in haste to get to the village.

Harvey agreed to be the bearer of some telegrams to the stopping-place of the coach, which was the nearest office. Knighton was jotting them down upon the leaves of a note-book.

"But you will take Alice home?" said Harvey to Knighton.

Then they came up together to where Alice stooped, washing her hands in a broken bucket that Gor had placed for her. By this time Harvey had forgotten all that part of his discontent that had been mere suspicion, and all his ill-humour. It was clear that Alice was innocent and had spoken the truth; it had been made clear, too, that Knighton had known no more about the affair than himself, and Knighton had left it to him to take thought for Alice. This being so, Harvey spoke tenderly:

"I am so awfully sorry, Alice, that you had this fright, and that you have had all this trouble and bother. Of course, I see that you thought it right to keep this promise; but it would have been far better to break it, you know."

"I must begone," said Knighton impatiently.

So they went their several ways, Knighton tramping down the hill with Alice.

CHAPTER XVI.

"MR. KNIGHTON!" This was after they had walked a good way in silence.

"I am listening."

"Does it make any difference in your opinion that he made me swear by—I do not know how to express myself—by what he called 'the mysteries' of your faith?"

"How a difference in my opinion? I have not expressed an opinion." He felt inclined to add, "I do not lecture you as if you were in pinafores," but he refrained from pointing out the difference between himself and Harvey.

"Of course it goes without saying that it would have been the 'wiser' thing to have broken the promise. I did not know until a day or two ago what sort of a crime it had been; but it was a terrific responsibility to take, to leave them to die there alone just because they wanted to be left alone! I could not have taken it if I had not bound myself, and even common sense was on the side of letting people know that they were there, which would have been equivalent to giving them up to justice."

She was speaking eagerly, her pent-up thoughts finding outlet.

"You, a magistrate, could not have let them go on hiding there. Hal Harvey could not have taken the responsibility of keeping the secret; it would not have been right for him. I see that quite clearly. It was not right for me, unless it was right on the one plea that I had been coward enough to say that I would do it."

"I understand you are asking me if I consider an oath more binding than a simple promise. It is something like asking whether I am morally bound in a greater degree by signing my name to a legal contract than by giving my mere word to perform the same engagement. Ideally, the answer is, no, of course. The ideal man does not undertake to do anything without the fullest knowledge of all that it will entail. Practically, however, it is so easy to speak in the mood of the hour, or in ignorance of all the issues of the case, that I hold I am bound morally in a higher degree by a document, because it means that I have realised my responsibility. If I sign it without full knowledge, it is my own fault. How far this applies to the way you emphasised the promise you gave, I cannot tell."

"I don't know whether it may be called inherited superstition, or reverence for the beliefs of my friends, or honest doubt as to whether the common creed may not be after all true, but whenever I thought of how I had promised, the words he made me say did add something, perhaps the significance you describe; and I felt it would rob me of complacency to break my word until I knew these men were going to harm some one, or unless he would give me back my word." They were walking down the hill in haste; her sentences came disconnectedly. "He wouldn't do that; he had reasons of his own, quite clear and fixed, for

keeping me to it. His reason was not one to claim my approval ; but was it for me to set it aside and assume that I knew what was better for him than he did for himself? What do you think I ought to have done, Mr. Knighton?"

"Until I have a more particular knowledge of what has passed and have time to consider——"

"I think that just means, in a very kind way, that you think my conduct has been idiotic. Well, I knew I had nothing else to expect. I have done the deed, and I will take the consequences."

He thought from this that she was nervously exhausted on this question and led her away from it.

"I hope that Harvey will get a horse to come back on and be at Norcombe again in a couple of hours. I would advise a novel or a game. Is Mrs. Ross well? It is a pity that the adventure did not fall to her share."

"Poor Amy! You are always laughing at her, and she really had grown pretty peaceful and sensible ; but now these last weeks Hal Harvey has been playing with her nerves, administering such large doses of her favourite stimulant that when he goes she will be more wretched than it is easy for us to conceive. Indeed, it is not a thing to be laughed at, the misery of having every nerve calling out for an excitement you can't get, and"—regretfully—"she had almost lost the appetite for admiration."

Knighton spoke abruptly. "What do you mean by talking of Harvey going?"

"I suppose he is going. We"—she stopped a moment—"we are not going to be engaged, if you mean that." She spoke sadly.

"When, may I ask, did you come to this decision?"

"For about a week, I think, we have been seeing that it would not do."

"It is very serious ; it is a very important decision. I hope you have not allowed yourself to be lightly influenced."

"I have not had any choice."

"Do you mean to say that he——?"

"This thing has been too great a strain upon his confidence. He actually thought I was doing something quite unladylike and unwomanly—exactly what, I don't know."

"The facts supported a suspicion that something was amiss, did they not?"

"Oh yes, if he read the facts in that way, they did. He thinks, too, that I am heartless and contemptuous."

"Has he felt that you treated him with coldness and contempt?"

"No, it is Amy he thinks I have been injuring."

"A man may say in ill-temper what he does not mean."

"Forgive me for telling you all this," she said. "We all make you our father confessor. I have no mother or sister to speak to, and I am very unhappy."

"When Harvey first came here he was singularly frank and open to me"—Knighton spoke in a measured, kindly way. "I did not ask his confidence, or desire it perhaps, but I was forced to feel grateful for his trust, and I should not be rewarding

it now if I did not tell you that I am sure that he has a warm heart and wholesome feelings, and few men are so thoroughly honest to themselves and to others."

After a minute, "Yes, I believe that—I respect him for his true friendliness in saying just what he feels—I really had grown to like him very much."

He gave a hasty glance, and saw that her eyelashes and cheeks were wet with tears. He felt the less inclined to defend Harvey.

"You see," she went on, "it is not just what he said to-day. For a great many days he has been showing that what I told you he said this morning was just precisely the way he felt. It just amounts to this : when one makes manifest one's good sense and good nature to him, he believes in them ; and when, by accident or temperament, one is not able to do so, he does not."

"It is human nature."

"I believe he would have trusted me if I had spent my time telling him just how much I truly like and respect him, and if I had proclaimed all my good feelings and casually mentioned all I have done for Amy, explaining to what martyr-like airs she always treats me when we are alone. I cannot do it ; I despise self-display. I must take the consequences."

"But we all need that treatment from each other more or less."

"Do we? But I think the less a person needs of it the more we respect him. At any rate" (her voice faltered, but she steadied it), "it is clear that, if he is able to think this of me, Hal cannot want me to marry him ; and I could not respect him if he did."

They had come to the centre of the village. Knighton was obliged to leave her ; he had directions to give. He stopped at the curate's door.

He said to Alice at parting, "As to what you have done for these wretches on the hill, I would not descend to what you call 'self-display' ; but do not therefore take for granted that I think your action has been idiotic." There was a twinkle in his eye.

"I have not acted with common sense," she said.

"No more you did. Good-day."

Knighton went about his business, supposing that Alice would forgive Harvey. "It is natural for a woman to forgive where she loves," he said to himself. He did not feel that Harvey deserved to be forgiven ; but that, he knew, might not be an unprejudiced judgment.

CHAPTER XVII.

DURING his walk across the moor Harvey had completely regained his good spirits. The more he thought of it, the more relieved he felt to know what Alice's secret had been. It showed that she was guilty of nothing but foolishness ; a little wilfulness and obstinacy too, no doubt ; but all that was very forgivable. He did not say to himself in so many words that until now he had felt it more or less likely that she had done something that he could not forgive ; but he felt unfeignedly thankful for relief, without asking from what he was relieved. "She is such a dear

girl," he said to himself; and then he thought how clear and beautiful her eyes were, and how strong and clear was the light of intelligence and kindness that fell from them. His mind reverted to that period of their companionship when they had been most completely at home with one another, after the first strangeness of it had passed, and before the late shadow had come between them—the walks and talks, the drives and the fun that they had had.

had the place searched to see if any dangerous chemicals or proofs of the young man's guilt or identity could be found, and the reason for this search had transpired. The search had been fruitless.

Harvey had need to speak to Knighton about an answer which had been returned at once to the first telegram sent to the nearest police station, and failing to find him here or at Norcombe, he pushed



HARVEY HAD COMPLETELY REGAINED HIS GOOD SPIRITS.

He thought how clear her complexion was, and how soothing the firm clasp of the strong, well-formed hand that she had given him in greeting every day. "She is a woman in a thousand," he thought to himself, because he happened to be in love with her, not because he could have told wherein she was peerless. "Of course," he added to himself, "she is severe to Amy, but every girl has faults; her little severities will pass away. When she is a wife and mother she will naturally gain those tender and delicate feelings which give such beauty and strength to a woman like Amy Ross."

As he came back from despatching the telegrams, the moor cottages were on his way, and he naturally stopped to know what more had occurred. A knot of village folk had gathered. They were considerably excited, because Mr. Knighton had

on to the Hall. He was in perfect good-humour with Knighton again.

"The doctor says the old gentleman may or may not live, but will anyway probably last a few days." This was the report Harvey brought from the moor cottages, and his comment was, "He did not take delirium into his calculation. Curious if he should blurt out his own secret."

"It is a horrible and extraordinary circumstance, the whole business," said Knighton. "I did not question Miss Bolitho more particularly to-day, for I thought she was overwrought. She owned that her chief fear when he assaulted her was that he was a maniac. He must have been most violent."

"It makes me shudder! A woman ought never to walk alone—never, under any circumstances. It is madness—I mean, of course, in a lonely place. She ought to have told us at once; but then a girl,

even the wisest of them, does love a bit of romance and mystery."

"There is a higher interpretation than that to be put upon her action."

"Oh, I know Alice would try to do anything that she thought noble or fine. Of course in this case it was an entire mistake; but we are all very apt to make mistakes. They say, you know, that the clothes on that poor fellow and on the corpse are of the finest, and on the linen, places are cut out where the name must have been. That rug and the tweeds they wear are the best of cloth. Ghastly, isn't it? Do you suppose that young fellow had to do with infernal machines? There isn't another class of men on the face of the earth so contemptible. No doubt, if a warrant is out for him, he can be identified."

"Do you notice that the father did not expect to be identified himself, or his name to be known? The police must be after the son under a false name, I suppose, and may know nothing of the connection with his father. It is possible, too, that they may have fled merely in fear of detection, not knowing whether a warrant is out or not. If the old man has managed his disappearance from home cleverly, he may be very difficult to identify. Who knows but what they may have friends to cover their absence, even wives or daughters heroic enough for the sake of family pride to make no sign?"

"It must be a ghastly thing to know that one might be arrested any minute, and hanged or committed for years. Fancy the disgrace of it! and knowing that one's relatives, if one had any, would have their prospects in life destroyed! It is rather clever of you to throw in the idea of the women; it heightens the colour of the thing." Harvey spoke feelingly.

They were drying their clothes by the fire in a low but large square hall, off which Knighton's library and other rooms opened. Harvey looked about at the oak casements of the small Gothic windows, and at the glimpses of pastoral landscape that were seen through the glass; he found it impossible to fix his mind upon scenes of crowded town life and crimes of hot passion or distorted reason. The dead man found so suddenly in the midst of this quiet region was, it seemed, too silent a witness of the existence of horrid deeds to bring home their truth where everything else testified of peace.

Harvey let his eyes rove up and down the picturesque oak staircase. He remembered his suspicions concerning Alice, but forgave her for wanting to be mistress of this house if she could. It was not an unworthy ambition, and he felt inclined to-day to give up the idea that she had been at all dishonourable in professing to him that her heart was disengaged. She had probably got the better of her fancy for Knighton, if it ever existed. As Amy had left the matter open to all conjectures, he could conjecture to suit his mood.

"I thought," said Knighton, "Miss Bolitho was out of spirits. You intend to call there, I presume?"

It was already plain to him that Harvey had no thought of rupture with Alice; he owed it in return for the confidence that these young people had

insisted upon reposing in him to warn Harvey against further blundering. "It is very hard on me," he thought, with a sigh.

"I think," he continued, "Miss Bolitho was grieved that you had not expressed your confidence in her in spite of what might be called the appearance of evil."

"Well, what was I to think? You haven't an idea what sort of things she was doing. Why, she went out last night between ten and eleven, and stayed out an hour. Mrs. Ross was nearly distracted; and as for me, I didn't know when she went home, and I spent about half the night tramping round."

"Had she not her servant with her?"

"Well, I believe she had; but of course I didn't know that at the time. But, anyway, it was a perfectly mad thing to do. Of course, now that I understand, and see that it was only mistaken charity, and that those chaps don't seem to have been able really to blow her up even if they had wanted to, I'll make it clear to her that I haven't the same feeling about it. Of course" (he added this with a little hesitation) "I have been dreadfully alarmed about her. We have all suffered—suffered a great deal, and quite unjustly, it seems to me. I very much prefer a straightforward temper myself; but Alice—"

Harvey did not finish the sentence; the ending in his mind was that he loved Alice so dearly that if she chose to keep a hundred secrets, it did not matter to him. This was not a sentiment that would bear expression; he left his "but" unexplained.

Knighton, out of long habit of general benevolence, had had the intention of pointing out, if possible, the rock toward which Harvey was steering his ship of hope. Now his mind within him grew scornful. The man who could know Alice Bolitho and doubt her integrity was not worth saving. Some duty he had however to perform, and he did not neglect it.

"It is seldom among men or women that one meets with a mind so true and noble as Miss Bolitho's." The words were said haughtily.

Harvey perceived that Knighton had ceased to be agreeable. Knighton had, in fact, begun to busy himself with some letters he held. Harvey brought his informal visit to an end. An offer of tea with Miss Knighton, civilly given, did not detain him. He did not know what call Knighton had just then to give himself airs of superiority; perhaps there was something behind, after all. Amy Ross had warned him; now he saw that, after all, there was something in her words. Harvey betook himself to the road.

CHAPTER XVIII.

ALICE and Amy were in their sitting-room.

Alice was reading to herself; sometimes she read a paragraph three times and then went on to the next without knowing what was in it. She was tired and ashamed of herself and unhappy—tired physically; ashamed, because she was in the mood to see many faults and failures in her own conduct; unhappy, because she had begun to look forward with pleasure to being Harvey's wife, and now the prospect had turned out only mirage.

Amy was lounging in a large basket-chair by the fire, her mind full of the little flutterings of thought and feeling which all the information given by Alice had produced. She felt that she was taken into confidence again, and was good-natured in consequence. Alice had told her story simply, but Amy's imagination had grasped and dramatised its details. For the hour she was full of love and admiration of what appeared to her heroism; she felt, too, the glow of the generosity which made her so quick to yield praise.

"I can't think how you could have courage to go at night"—Amy gave an enthusiastic shiver. "I should have been frightened out of my wits."

"When disagreeable things have to be done there is no use in thinking about one's feelings."

"Oh, what an oracle you are, Alice!" Amy was incapable of sarcasm; this was praise—warm, genuine. "Oh yes, you are wise. Oh yes, feeling does incapacitate one." This last was said with a shade of reserve. If Alice were the wiser, it was at least a comfort to know that her own feelings were superior.

"I have not acted at all wisely."

"Oh, but it was so fine, because you had promised! And you sacrificed so much. I really think that Mr. Harvey was dreadfully distressed. In fact, I know he was"—here a little tone of superiority—"although I dare say he didn't tell *you* what he felt."

Alice was apparently reading.

As the thought of Harvey grew more insistent, Amy's enthusiasm wavered a little, but rallied as her mind dwelt upon how much Alice had staked, although she thought no one but herself knew how very near Harvey had come to giving up his suit. This was Amy's view of what had passed, but she resolved to be magnanimous and not to tell Alice.

"I think it was so brave of you to keep silence when"—Amy bridled with obvious consciousness of her secret knowledge—"I don't mean, of course, that he could have been driven to—I mean, of course, just when it would have been so much easier for you to tell."

"I am glad you are pleased with me, Amy; but, if you don't mind, I would so much rather not talk about it."

"Oh, indeed I am pleased with you! Oh, indeed I would not withhold my admiration." Then, after saying this, she began to realise that she had been asked not to talk, and her good spirits drooped. Alice had not appreciated her generosity.

The longer she thought of the request for silence the more she showed herself offended.

"I beg your pardon, Amy," said Alice. "I am sorry if I seemed rude. I am very tired."

"You are so strange. I cannot understand how it is you do not like to be praised."

"But I have done nothing to deserve praise."

Here Harvey entered, and he was very soon fairly launched into the same subject. He was full of solicitude for Alice, full of gentleness; but the habit of complete equality in discussion, which it would have been impossible not to acquire in intercourse with her, caused him still to express his disapproval with all his natural frankness. His view was quite different from Amy's.

"You see, Alice, any madman or brute might demand any sort of promise from any of us with a knife at our throats. You surely would not think that, if a fellow had no means of defence to meet an attack, he ought either to throw away his life or keep the promise."

"You can read all that the ethic books say on the subject, and then you will know all that I know." Alice spoke wearily.

"I never read ethics; it is only a practical question of common sense."

Amy was considering Harvey's words and wondering if she had previously been mistaken. "It certainly can have nothing to do with ethics, Alice," she said; "it is only what is right or what is wrong we are thinking of."

He twirled his hat, and looked at Alice with a smile that deprecated his adverse judgment. "You see, in this case, over and above the wrong to yourself (which I can't overlook), these men would have been really better off in jail, where they certainly deserved to be. Living in that hovel would have killed strong men."

A fresh light had broken upon Amy. All the little withs of her basket-chair creaked gently with it. "Oh yes, Alice," she murmured, "it was bad for them to live there."

"It was nobly honourable and self-denying of you, dear," continued Harvey, in the gentlest and most affectionate manner. "I am only trying to show why I think you were mistaken, even looking at it entirely from the point of view of benefit to them."

"The cold and the damp must have been terrible," said Amy.

"There is this to be said" (Alice had the appearance of speaking somewhat against her will), "that when I first saw them, the young man was evidently in the last stage of consumption, when, I understand, air is the chief thing wanted. The cottage is not damp; they had a fire at night when the smoke was not seen; and as for the old man, he was so nearly in a state of frenzy that I think arrest would have maddened him outright. Besides that, he had a distinct object in keeping his son there, a religious object, which you religious people ought to respect: he desired that his heart should not be hardened by the exercise of human justice, but softened towards God, before he died, by experiencing human love. He wished, in fact, as you would put it, that he should repent and be converted. The younger man had got in with Anarchists—the father told me so; and that his judgment had been overborne by his creed accounted for the old man's fixed belief that he could not learn to comprehend justice until mercy had broken his heart. I do not say that I commend him for his belief or his action; but I do say that you Christians ought to be able to sympathise with it."

"Oh, indeed we can," cried Amy, but then looked doubtfully at Harvey.

Harvey looked upon the floor. In his handsome face his sensibility to the serious subject was evident. He remembered what he had heard within the cottage the previous night; he wondered how Alice could say what she had just said, in a voice of such studied calm.

"Of course it was a desirable thing to bring the young fellow to a right state of mind," he said; "but I can't see how any but a madman could suppose that that was to be brought about by defying the law. There is nothing so abominable as this Anarchist business; no punishment is too bad for fellows who go about murdering innocent people."

"It does not seem to me a difficult thing to grasp the old gentleman's idea—intellectually, I mean." (Alice spoke coldly.) "He believed that his son's wickedness consisted in disobedience to God. He was willing to give his own life, his chance of salvation, perhaps, that the son might be reconciled to God before he went, as he believed, to meet Him at the bar of judgment. He had found that his son only realised that he owed any obedience, and therefore any repentance, to his own father, when he discovered that his father chose shame and death with him rather than to lose him. The son, I suppose, if he had any sense, when he saw the misery he had caused and the way the old man nursed him, recognised clearly that he deserved all sorts of evil for his unfilial conduct alone."

"He certainly did that," interrupted Harvey, "and the old chap was very decent in some ways, too."

"Well, I suppose that such recognition of evil desert is what you call repentance. I do not need to point out the analogy that the old man saw. He felt sure that, if he had only time to convince his son that the love of God was like his, and greater, he would see that he deserved to be punished and be in a position to be forgiven. I don't say he was justified in the means he took—he was driven to extremity; but I do say that, granted his belief, his standpoint is perfectly comprehensible. *You* are not prepared, are you, to say that the poor fellow who died this morning is not going to live somewhere through ages upon ages, and that the last few weeks were not a cross-roads, so to say, for him, and that the turning he took was not important?"

She asked this last of Hal Harvey. It was to him she had been talking. Although she spoke without any apparent emotion (just, he fancied, as she would have stated a mathematical proposition), he felt the subject to be unpleasantly solemn.

"But you don't believe all that, Alice; so why did you act upon it?" cried Amy.

"My belief doesn't make a particle of difference. If I had been free to act upon my own judgment, which, because of my own cowardice, I was not, I should have had no right to coerce the old man merely on the ground that I was right and he was wrong; I could only have fallen back upon the opinion of the medical profession that a man's body is of first importance, and upon the law, which would say he must be put in jail."

"Well, of course," said Harvey, "I merely wished to suggest that it isn't safe to have to do with people of that sort, and that your very beautiful charity might not really have been all good luck to them; but of course it is the risk for you that I think most of. Why, he threatened your life. How *could* you trust yourself alone with him?"

"And then the jail chaplain must have known better what to say," Amy chimed in eagerly, "and

our own Mr. Jones would have gone to see him; I am sure he would."

"Yes, in any case there would have been no lack of ghostly counsel for the fellow," agreed Harvey. "But you know, Alice, you must not think for a moment that I am blaming you now that I understand just what you have done. I do not blame you in the very slightest. It is only that I think you have not seen the case in all its bearings."

She laughed a little. "It is hardly necessary to tell me that you think that I have overlooked the obvious considerations you have just been pointing out, Hal; otherwise, I suppose, you would not have pointed them out. But why should you suppose that I had overlooked them?"

"But how could I think that you thought of all this, when you neither acted on it nor told us about it? A promise that is exacted by force is no promise."

"I think if one is cowardly enough to give a promise, it has *some* binding force—how much I do not know."

For some reason she had risen up, and he, of course, rose with her, interrupting her as he rose:

"Oh, do not speak about being cowardly." He spoke as a man speaks when there is only one person in the world to him, and his whole mind and heart are absorbed in appealing to her. "What could a woman be in such a case but terrified? and the wisest thing, to obey her terror! But"—with feeling—"do not speak of it. It maddens me almost to think of it."

"Well, I will not speak of it. I am going to ask you to excuse me now, for my head is aching. Amy will entertain you very well, I am sure."

He made no remonstrance, but went to open the door, absorbed only in the immediate thought of speaking to her on the other side of it.

"Alice!" He was standing now in the twilight of the low-roofed hall, barring her progress. "You do not think, dear, that I am blaming you now that I understand. I know that I did speak as if I blamed you to-day; but it was only because I did not know what you were at, and your safety is so inexpressibly precious to me." Look and voice said more than words.

She was glad to find some abstract thing to say—abstract, that is, in the sense of withdrawing the point in question from their two selves. "Between those who understand each other," she spoke gently, "blame is quite as acceptable as praise; at least one feels that it is usually more just and more helpful."

So conscious was he that she was neither speaking of herself or of him that he did not even attend to the substance of her remark. "When I think of the dangers and difficulties you have gone through—" he began and stopped.

His gesture showed that he wished to gather her to rest in his arms; he had put out his hands, and when she warded them off he had clasped hers.

With quiet, insistent strength she pushed his arms from her. She would have given a great deal to speak with clear dignity, but she could not; her voice was hoarse and broken, her head, in spite of herself, sank with a shame she could not analyse. "Don't you see," she burst forth, "that we are miles apart?"

Then, in some way, she went past him and up to her own room.

THE WORLD'S TREASURE-FIELDS.

GOLD-SEEKING.

THE successes of the gold-seeker are long remembered ; his failures are soon forgotten, and mankind is always ready to follow where he leads the way. There is no such colonising stimulant as gold ; it is the main cause of man's redistribution, and though we may often hear of civilisation getting its lift on the powder-cart, it is generally gold which has brought the powder-cart on its journey.

Take Madagascar, for instance. The French have gone there mainly for the gold. The mineral wealth of that great island is enormous. A traveller there, suddenly finding his horse go lame, dismounted and extracted from the frog a nugget weighing from six to seven ounces ; and so abundant is the gold in some parts that the cattle going home after grazing in the swamps carry gold dust in their hoofs, which is deposited in their pens and collected by the natives. In South Africa gold was discovered in much the same way, though there it was noticed not only on the hoofs of the cattle but on their horns.

Most of the gold discoveries have been accidental. In 1857 an Indian searching for his strayed donkeys found the Eldorado of Guiana which Sir Walter Raleigh had sought in vain. The Nova Scotia goldfield was discovered in 1861 by a man who stopped to drink at a brook, and observing among the pebbles at the bottom a piece of gold, looked about and found more. Many years before the North Carolina goldfield was discovered by a boy who went for a morning bathe in a river in Cabarrus County, and while in the water stumbled over a smooth yellow stone, which on being picked up proved to be a nugget weighing a quarter of a hundredweight. This might almost be described as in many senses the mother of modern goldfields, for on it were used the improved cradle and other utensils which the American diggers took to California in forty-nine, and thence found their way with to Australia, and all over the world.

All the world has heard of the discovery of gold at Sutter's Mill in January, 1848, when James Wilson Marshall saw the unknown mineral in the race, but it is not so generally known that in March, 1842, one of the early discoveries of gold in California was made by Francesco Lopez, who went out in the morning to dig up onions with his sheath knife, and found grains of the precious metal sticking to its blade. Nor does everybody know that California was known to be a gold-producing country by Sir Francis Drake, and that its possession, like that of the other auriferous regions of the Transvaal and Madagascar, was not encouraged by the government of the day owing to the probable cost of its occupation. Captain Shelvocke, too, reported gold in California in the

days of Queen Anne, and, more curious than all, if you turn to William Phillips's "Mineralogy," published in 1815, you will read : "On the coast of California there is a plain of fourteen leagues in extent, beneath the surface of which large lumps of gold are irregularly interspersed !" A country, however rich, is never rich enough to accept all its offers.

That there was gold in North Africa was discovered by Sir James Campbell in the Ionian Islands, when, going out with a gun, he happened to shoot the Barbary pigeons whose claws were covered with the glistening sand, which on examination proved to be gold dust, evidently brought by the birds from the margin of some North African river at which they had stopped to drink. The world owes the once famous gold mines of Wicklow to another sportsman. He was a school-master, and one day when fishing discovered gold among the gravel. For twenty years he kept the source of his income to himself, but happening to marry a young wife he told her his secret, and she, thinking he was mad, told her relatives, who spread the news so effectually that in two months no less than £10,000 was picked up by the miscellaneous crowd of wild Irishmen who flocked to this highly remunerative "pitch."

Gold in Australia is generally said to have been found by Hargreaves, but one of the first convicts transported to Botany Bay learnt the great secret, brought a sample to show his success, and was promptly hanged by Governor Phillip for attempted escape, and to keep the demoralising discovery unknown. Gold was also discovered by John Calvert in New South Wales in 1837 ; and in 1849 an attempt under his auspices was actually made in London to float a company for working the gold mines of Australia. Calvert was a typical gold seeker. As Heuland's assistant he worked in the gold mines of Siberia and Transylvania, and conceiving a theory that gold could be found everywhere, which is not far from the truth, he sailed for New South Wales, found it there near Macquarie, then to the Middle Island of New Zealand and found it there, then to what is now South Australia and found it there, sailing thence to Sydney to pay it into the Sydney Bank, the officials of which, calmly refusing to believe in its local occurrence, entered it as being received from South America ! Calvert also found gold in Tasmania, and curiously enough found it in West Australia on the Upper Murchison and Ashburton, though the West Australian goldfields are now more generally connected with the name of his namesake, who is probably not unrelated to him. This West Australian discovery is all the more noteworthy inasmuch as Hargreaves, the well-known

finder of the South-Eastern Australian goldfield, was specially sent to West Australia for gold in 1864 and reported that there was none there! But then West Australia is a large place, and few people thought much of its gold prospects until August 1885, when Mr. Herdman reported the auriferousness of the Kimberley district.

It is a curious fact, however, that the old Dutch navigators should have reported gold on the west coast of Australia, as the old French did, with perhaps more justification, on the west coast of Africa, where the story goes that one of the seamen fell into a gold hole, the workings being as it were in gravel pits, the native sitting down and digging around with a hoe and washing with a calabash until he had sunk over his head, when the excavation was abandoned and covered with boughs and leaves, the gold being alluvial and, like that in the river sands, coming from the denudation of the Kong Mountains, concerning the wealth of which the modern French have such high expectations. The Gold Coast is still the coast of gold, with large quantities in a small way. There gold dust is practically a coin of the realm; you can have a farthing's worth (on the point of a knife) and a "pescha" or pennyworth, the unit of value being the "aki," weighing about the sixteenth of an ounce, as it was when the Frenchman fell into the hole over six hundred years ago. The consequence of that fall was the formation of the company at Rouen in 1366, to trade with West Africa, their first vessel after a nine months' voyage returning to Dieppe from the coast beyond Cape Three Points in 1380, a few months before Wat Tyler mustered his thousands on Blackheath to march on London and come to grief in Smithfield.

Another gold coast, and quite as worthy of the name, was that of New Zealand, where on the Okarito and other beaches in 1869 hundreds of men were at work for six months or more searching among the shingle to such good effect that the gold buyer of the Union Bank found himself cleared out. "How much have you got?" he was asked by four men who had been at work for six weeks. "Quite as much as you want." "Well, how's that?" said the men, putting in front of him two "billies" full of gold worth over £2,000—a nice little picking from among the pebbles of the seashore. And this is not the strangest phase of New Zealand gold seeking. Think of a steam dredger placidly working in midstream, and the gold in the mud brought up in its buckets being enough to pay working expenses and yield a profit. Think also of that curiously speculative sport known as "fly-catching," at which it is said £7 a week can be earned; the mode of operation being to float blanket tables on a stream and wash them carefully for the gold they catch—a system, however, not peculiar to New Zealand, for in Japan woven mats are used, and in Ladak skins are placed in rivers with their hair against the stream so as to act as a miner's blanket, and in Upper Burma the horns of *Bos sondaicus* are stuck into the river beds and sold when full of gold spangles. Sheepskins, too, are floated and pegged down for gold gathering in Savoy and Hungary, as ox-hides are in the rivers of Brazil. And did not the ancient

Greeks know of a golden fleece, which was simply a ram-skin that went a "fly-catching" in the waters of the Phasis?

Of course, there is hydraulic mining, mainly about Reefton, where a jet of water from a "flume," as from a fireman's gigantic hose, is played against the side of a gravel section—a cheap and wasteful operation, once in much vogue elsewhere, particularly in California, where it is now in many districts forbidden, owing to its silting up rivers and harbours and burying rich riverside lands beneath a deposit that must be barren for many years, a prohibition all the easier of enforcement, owing to hydraulicking being no longer profitable. California has seen every stage of gold winning, from the mere washing of the river sands to the crushing of the quartz reef, and even that rare experience, the finding of nuggets in the reef, as in the case of the hundred-and-forty pounder from the Monumental Mine at Sierra Buttes; and its auriferous gravels are of all descriptions, from those formed by existing watercourses to those of ancient river-beds often at right angles to the present streams, up among the mountains, or on dry tablelands, some of the deposits ranging from eighty to two hundred and fifty feet thick, and some of them even broken up and transported by volcanic agency so as to be covered and bedded in flows of lava.

Farther north than California is the Columbian goldfield, known to the Indians for centuries, but kept secret from the whites until 1853, when the amount used in trade became too great to be hidden. In the north of that field, known first by the washings in the Fraser River, are the Camai Mines, the most northerly that exist except those in Alaska. Situated on the fifty-ninth parallel, the soil there is permanently frozen at a small depth on the shady sides of the valleys, and many of the workings are in this icebound conglomerate. Gold has been found practically all over America, from Alaska and Labrador to Patagonia. That known to the Indians of the north was all alluvial, and a very curious way they had of smelting it. A flat stone was hollowed out in the form of a basin; in this charcoal was placed, and on that nuggets of the metal. Round it in a circle sat the Indians, each with a long reed leading to a clay pipe at the end, and the charcoal being lighted the whole company blew and kept on blowing in such a way that the blast was practically continuous and a powerful heat obtained, sufficient to easily melt the charge.

A somewhat similar system was in use among the goldsmiths of India, where the gold was also mostly alluvial. Even in this day there are families constantly at work who have been gold washers from time immemorial. In the eleventh century gold was the common metal of India, but the silver introduced by the Portuguese in the sixteenth century seems to have driven it out as currency. The gold that Asia has yielded must have been simply enormous. Alexander the Great is said to have received 67½ millions a year from Persia, Darius getting the gold from Persia, Siberia, Tartary, and Tibet; and even if there is exaggeration in the amount—which is not at all unlikely in a story from the East—the general use of gold among Orientals of all ranks in all ages must have

used up hundreds of millions. It should also be remembered that that rare creature, the millionaire, is not an entirely modern invention; common as he may be in America to-day, he does not seem to be much commoner in proportion to the population than he was in the ancient world.

Southern India has always yielded gold. The amount now in possession of the poorer classes of Madras—their nose rings, bangles, and chains and other personal ornaments are all gold—but curiously enough the country which employs most gold in ornament in proportion to the population is not India, or, indeed, any gold-producing country, but Holland.

This use of gold for jewellery purposes is apt to be overlooked. In England alone £33,000 worth of gold a week is used by the jewellers; and this is nearly all new gold, which being required in certain forms and quantities is mostly supplied from London. A curious chapter might be written on the preparation of jeweller's gold. There is watch gold for instance, which is of eighteen-carat, and for the more decorative smaller articles there is grain gold, which is fine gold above the Mint standard. Although the metal is prepared in London, by far the larger portion of the articles are manufactured at Birmingham and Sheffield. Birmingham takes half the gold and silver used in British jewellery, the silver alone used in the capital of the Midlands averaging over £350,000 a year.

England's £1,720,000 a year is said to be a third of the world's goldsmith's work, although, of course, all gold statistics are for many and obvious reasons but approximate and none too favourable estimates. Production is never likely to be overstated in countries where royalties are paid on returns. And there must always be a wastage; for there is a temptation about gold, not only in minor matters. As an example of this we have the story of the Welcome Nugget, found at Bakery Hill, Ballaarat, in June 1858. At Ballaarat it was sold for £10,500. It was then exhibited in Melbourne, and when sold there, in March 1859, it had dwindled to 2,195 ounces, worth £9,325. It was then brought to London and sold again, when it had further dwindled to 2,166 ounces. When it was melted in the following September it yielded 2,019½ ounces of pure gold, worth £8,376 10s. 10d. And there are other nuggets which suffered from surface denudation by human agency in an even more striking manner.

More of the world's gold now comes from Australia, North America being a good second, Europe and Asia a close third, and Africa fourth. The reason that Europe and Asia have to be taken together is that, although Russia yields more gold than all Africa, it gets the bulk of it from Siberia, and returns it at St. Petersburg. Every year the yield from alluvial working is smaller and that from quartz-crushing increases. It is only in new fields where the gravels are untouched that we hear of nuggets, although nuggets are occasionally found in the vein, as that at Monumental Mine, that at Cabarrus County, North Carolina, and the ninety-six pounder from the Taschka Valley in Siberia, which, however, was not in quartz but in decom-

posed diorite; gold, though not generally in nuggety form, being often found in decomposed rock, the deposition having evidently been made as far as the filtration allowed and ceased at the point where the decomposition ended. Sometimes the vein has remained, and the rocks on each side weathered away as at Anstey's reef, the pioneer of the Yilgarn field in which Coolgardie is situated, where the rocks between the quartz veins are kaolinised mica slate, and occasionally pure kaolin.

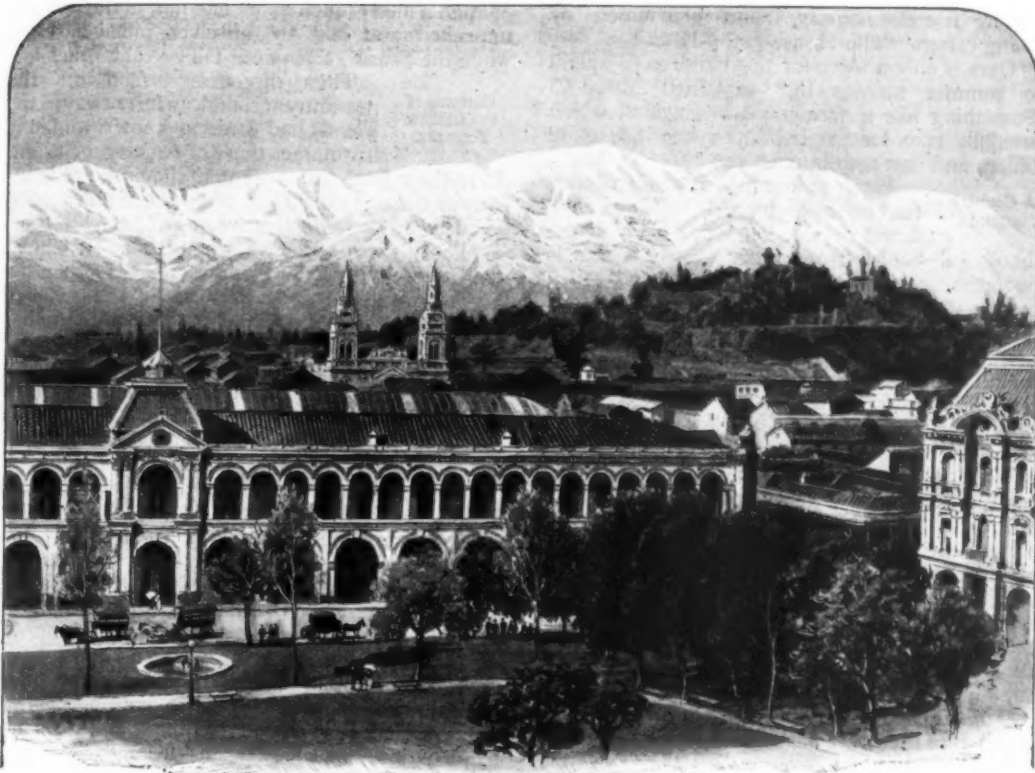
Gold is of all geological ages, from the Archæan to the present, when it is being deposited in Nevada from solution in alkaline sulphides; but the bulk of it has been found in the oldest rocks and distributed thence by their degradation, hence its appearance not only in metamorphic but in stratified rocks and the gravels and sands derived from them. The early gold was all alluvial, but as the lighter the flake the longer it floats, man began to trace up the metal, finding its remains heavier and heavier until he reached the solid rock in which he opened his mines. Some of his mines are even now worked with considerable simplicity. North of Kandahar there is one in which the rock is first blasted with gunpowder, and then the fragments chipped with a hammer, some of the lumps of gold being as big as almonds, although gold is almost always found in the vein as scales and strings and specks and traces.

Many of the gold mines are very old; even Herodotus has something to say about "ants," which most read "miners," who lived "in the land of the Indians bordering on Kashmir, making their dwellings underneath, and throwing up sandheaps as they burrowed, the sand which they threw up being full of gold"; and much earlier we have the mines on the Red Sea littoral, to which, according to the inscription on the rock-temple opposite Edfou on the Nile, Seti "came to see the gold regions for himself, and finding no water had a well dug." Later on his son Ramses directed his attention to these mines and those at Wady Allaki, a curious map of which is preserved at Turin, giving the mountain tracks and roads, the places where gold was first found, the position of the wells, and everything calculated to help a prospector.

There were gold mines almost as old in Midian and the Sinaitic Peninsula close by; there were some in the Troad, in Thrace and Crete and Cyprus; some, worked by the Phœnicians and Carthaginians and then by the Romans and Moors, in Spain; some by the Romans and Gauls in France; some by the ancient Romans and modern Welshmen in Wales. In short, there is gold nearly everywhere if it would only pay to work it. And yet how little seems to pay! One hundred and twenty grains to the ton will pay in crushing when there is no pyrites, and twenty to the ton pays in the Victorian washings; in Siberian washings a yield of thirty grains to the ton is satisfactory, while Californians are content to continue at the rate of twelve grains to the ton, working old mine tailings over again under the impression that gold grows by the clinging together of the particles missed by imperfect appliances.

W. J. GORDON.

THE CITY OF ST. JAMES.



PLAZO DE ANNOS, SANTIAGO.

"WILL you drive out with me next feast-day and see our little country house at Plasilla?" This invitation was given by one of my new friends in Chili, an Englishwoman.

Now Plasilla is the site of the great battle where the Opposition finally defeated Balmaceda in the late civil war, marching into Valparaiso that same evening. Waterloo and Sedan are dwarfed in comparison with its importance; or so some of the Chilians and even foreign residents apparently think.

The kind proposal being eagerly accepted, away we started one morning in my friend's waggonette. Her husband and two more of their large and cheery family went on foot by a short cut across the hills. Three schoolboys were riding their ponies. It was a merry little party. The July air was so keen that, despite the warm sun, we were glad of our fur cloaks, as, after passing through the low town, we reascended to the upper Zorras hills, and on by a lonely road winding up the face of a mountain ridge. At its sharp inner curves, the road was often broken away where the wheel of some ox-cart had slipped over. One such cart we

passed, its great weight only saving it from rolling into the gorge below; the team of eight oxen placidly awaiting as many more before trying to raise the mass. On these lonely roads the ox-waggons are especially dangerous, for the drivers go to sleep, as one did the other day here, and, falling off, was crushed by the wheel. His team slowly paced on for two miles till stopped, piloting their cart round the loop-like bends by either habit or instinct.

As we climbed up 1,000 feet, the scenery took on its Chilian wintry character, the wide hill-ridges around being of a peculiarly dark-green shade owing to their scrub of wild fuchsia, myrtle, and cacti; absolutely treeless; lonely. Far beyond rose the nearer Cordilleras, sharply outlined and blue as indigo. The reddish haze in which they are bathed in hot weather, which had struck me so much on first arriving, had long vanished.

At last we gained a tableland on the hill-top, all furrowed with water runnels, deep enough to hide, as they possibly once did, rows and rows of soldiers. This was the battlefield of Plasilla. Here was the

A Winter
Picnic to
Plasilla.

The Battle-
field.

Government position, and here their cannon were placed. Up from yonder valley rushed the Opposition troops, though the ground is so steep, cut down the gunners, and the fighting then became hand to hand, desperate, the terrible Chilean *corvos* (curved knives) brought into play.

Descending into the valley, a few hundred yards farther came a wood and garden wall; and here was my friend's country home, nicknamed by passing carters "The House-in-the-Hole."

"Ours is only a place for the children to spend the summer months in," explained Mrs. C. "Something like a farmhouse in England which townfolk take for the holidays; but it is quite Chilean, and that may interest you."

A Country
Hacienda.

Passing through high wooden doors, the carriage stopped beside a long *barra* or wooden bar, to which the schoolboys' ponies stood tied. Such a bar is invariably seen outside every rancho and farmhouse in Chili, and a favourite rough game, literally horse-play, called "Pushing at the Bar," shall be elsewhere described. The one-storeyed farmhouse was built round a square court, closed by massive wooden doors.

"See the marks of the rifle-bullets through them, and where the lock was partly blown away," said my host, who now joined us. And he told me how these gates were kept strongly barred by the gardener's family while *Plasilla* was being fought, so that the victorious Opposition troops vainly tried to enter, supposing that routed Government soldiers were sheltered within. My friend's dwelling-rooms were partly closed, furniture piled, beds sheeted as in England under similar winter conditions, but still one could see how pretty and cool they would be in summer time. Across the *patio* were the kitchen and offices, while at one place the verandah of the court was widened into a concrete square, vine-trellised overhead. This was the summer open-air "comedor" or dining-room.

especially bade me notice the popular Chilean vegetable *papas de apio*, or celery potatoes. He thought this celery but slightly different from our own kind. It is not earthed-up, and the tubers served with white sauce resemble Jerusalem artichokes, but with the strong celery flavour. Surely this would be an excellent addition to the list of our English vegetables.

Such a merry lunch as we had now in the parlour, unpacked and laid by ourselves picnic fashion, while the swarm of boys out-talked each other!

Customs of
the Chilean
Peasants.

Then discourse turned on the peasantry around, whose ways my friends had come to know intimately in summer-times of country seclusion.

As to their food, our workmen, they said, take an early *desayuno*, or breakfast, of a piece of unleavened bread called *pan blanco*, with a cup of hot *cedron* tea.

"Pan blanco is fine stuff when fresh," exclaimed one boy. "Very heavy," murmured his father.

"And the *cedron* tea is made of the leaves of a wild shrub growing here," volunteered another boy volubly. "The leaves smell very sweet, and are dried; then they pour on boiling water, and add sometimes just a pinch of real tea."

"But you should tell, too, that in England it is called sweet-scented verbena," added his mother, delighting me by the information.

"It's excellent to drink, anyway," chorused all the boys.

My hostess, who from long residence in the country speaks Spanish like a native, or, as she herself laughingly said, like a peasant, takes the liveliest interest in the *huasos*, their herb-lore, customs, and especially native songs and music, being herself the sister of our well-known composer, Miss Maud Valérie White. Many other Englishwomen agreed with her in assuring me that the knowledge of native healing plants, plainly handed down to the Chileans from their Indian ancestors, is excellent. Chilean nurses will cure



HUASOS.

After a brief house inspection, we searched for flowers in a plot where violets and half-frozen roses lingered, despite the July winter. Farther away was the large kitchen garden, where Mr. C.

their English charges of whooping-cough by giving tea made of *hilo* (a herb of which we vainly tried to find the English name), with syrup of violets to ease the cough. And this cure answers so well

that English doctors now often adopt it. Then a small piece of bark of the *quillai* tree put in boiling water is excellent for cleansing clothes, or as a

On May-day, and all winter fiestas following, weather and ground permitting, the Valparaiso Paper-Chase Club have a rousing hunt. Then



A RANCHO IN CHILI.

hair wash, while the handsome *boldo* tree is of much virtue in liver ailments.

Relics of the Battle. We crossed the road to visit a second but empty country house, also belonging to my friend.

Picking our way through tangled rose-bushes and shrubs, she made me peep through the windows to see the ceiling still riddled with bullets since the day of Plasilla, and two round holes that had been drilled by shells. Then, strolling homeward, I was shown the charming wood and wild grounds behind the house. We searched among the sage-bushes and myrtle and a plant like white heath for the grave of some soldiers found dead in the coppice after the great battle. Only a reddish earth-patch, two sticks tied cross-wise, and a faded wreath.

The winter afternoon was now shortening, so we started homeward, carrying great bunches of maiden-hair which the boys had gathered in the crannies of the brook, that was overhung with willows and blue-gum.

Fiestas: the Diez y Ocho, and others. Have I already said that the *only* holidays for the working English here are Sundays and the Spanish feast-days? The latter, roughly speaking,

are one fiesta a month, three holidays at Easter, and above all the famous week of the *Diez y Ocho*, or eighteenth of September, the anniversary of the liberation of Chili, when the park in Santiago is crowded with carriages, "just like the Row in London" declared several narrators enthusiastically. Many Chilean families live economically for months, in order to make the braver display in the capital at this festal time. Hotels, theatres, streets, are crowded with holiday folk in gay attire; *peones*, *huasos*, small proprietors, deputies, senators, and all the great Chilean gentry.

an early train is full of some forty to sixty riders and horses bound for some favourite meet out in the country—a cheery gathering with a hard day's ride to follow.

The Corpus Christi procession on May 26 filled the Valparaiso streets. Crimson arches and white and pink shrines adorned the Intendencia Plaza. Then with military music appeared a long row of candle and banner bearers, defiling past Lord Cochrane's statue, while sacred emblems were borne aloft by priests or crimson-robed boys. Troops of children and young girls, dressed in white muslin and long veils, followed these, singing. Lastly came the host, carried by the bishop under a baldaquin, surrounded by priests in gorgeous vestments, and followed by another military band and a regiment or two. As the host paused to visit each temporary shrine, the acolytes faced round, swinging their incense smoke in a soft haze over the varied scene; candles twinkled in the daylight; and the kneeling maidens chanted one of the Latin hymns composed by Thomas Aquinas six centuries ago.

A Ride over the Hills. On summer feast-days, picnic rides are got up by the English, their direction sadly limited by the surrounding hills.

In my humble opinion, riding up these reddish-soiled heights is a four-legged mountain climb over deep cracks, rain fissures, and around gullies. But it is a real pleasure to praise the bridge-road to Plasilla, whither I rode with some friends another day. A sudden heat wave had followed three weeks of raw cold that at nights often chilled one to the marrow, and we felt too warm on crossing the hill-crest, behind which lay red ridges, scrub-grown, and grazed by a few donkeys. The path wound by innumerable curves of *quebradas*, all of which had their histories. Below

this one was the famous reservoir which burst one early morning, sweeping down tons of earth, wretched shanties and their dwellers, trees, gardens, animals, in a mixed horrible flood into the town far below.

Farther on, in the heart of the hills, there were lovely views at last—peeps of brilliantly blue sea framed in dark green. At times we cantered, but when the road was greatly broken, my steed, an aged hired grey, paced along with a quick tittuping gait, outstripping my companions' partly English-bred horses. This was not the famous Peruvian "pacing," for in Peru horses ought never to gallop. But a true Chilean horse, though able to canter all day without tiring, is generally taken on long journeys at this ambling pace, often overtaking some gringo, who, hare-like, thought he had galloped past the tortoise hours ago.

Presently we drew rein in the high air of the battlefield. Here (he will forgive a smile) the gentleman who had kindly got up the party for my instruction in the famous tactics of Plasilla, drew suspiciously aside. It was another who took up his parable, describing graphically how he had ridden out here at four o'clock on that grey August morning with other Englishmen, bringing succour to the wounded, who lay around thick as a human harvest. Into these details my mind entered with all sympathy, but what did I know of military strategy? Of how the German colonel had taught the Opposition troops to skirmish in open order, so that the Government old-style soldiers supposed them a scattered rabble? Of the forced march inland made by the victorious fighters for greater civil freedom? or how the infantry had crept round yonder foot-hills and the cavalry charged up the valley?

Splashing through a brook crossing a wide road, we stopped at a posada in the valley hamlet. How different from an English inn! Knocking with riding-crops at a crazy wooden door in a wall, we ducked heads and rode into a disorderly yard. Its surrounding sheds much resembled each other, whether stables or dwelling-rooms. But the guest parlour, opening on a long mud-floored porch, was quite comfortable. It boasted well-stuffed green sofas, a big table covered with oil-cloth, a cheap piano adorned with empty shells from the battle-field, while Spanish fans and danseuses in tissue-paper enlivened the walls. Refreshments were brought in—native Limache beer for our men friends, and tea without milk for my girl companion and my-

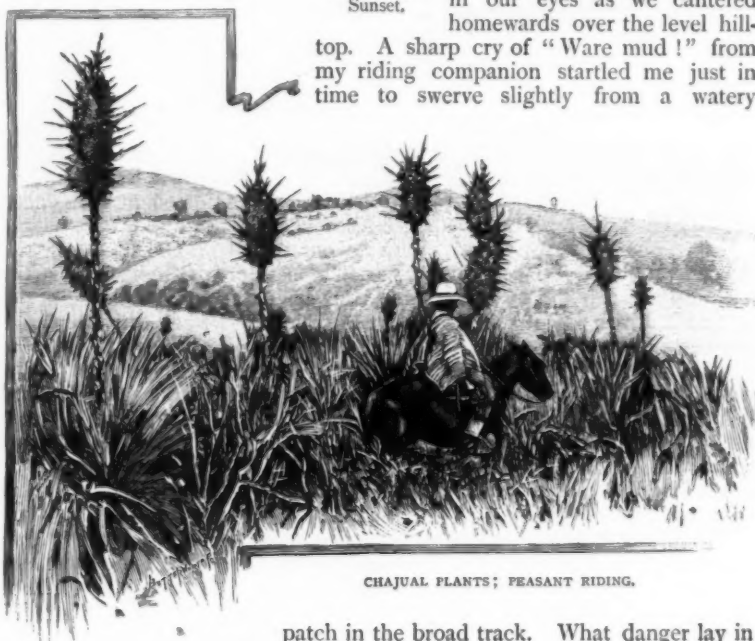
self. Also there was pan blanco, very hard unleavened rolls, that even a huge pat of butter could not soften.

Huacos and
their Horses.

As we started homewards, two tipsy huacos passed us at full gallop, in clouds of dust, working their arms like railway signals, one almost brushing me, so that I feared a blow from his heavy wooden stirrup. They rode full tilt to a despachio, and at the wooden barra their clever nags turned round sharp, stopping dead. This is a common trick taught the Chilean horses, which are "as wise as men," so all the English say in warm praise of these tireless, good-tempered, wonderfully trained animals. Half an hour after, the same huacos tore past us again, quarrelling loudly after their late glasses of *chicha*, and a mile farther dashed up to a second rancho and its barra, never slackening speed till they brought up short. These Chilean peasants certainly ride like centaurs. One English acquaintance assured me that huacos will gallop at a wall till the horses graze it with their forefeet, and yet wheel without falling.

A Glorious
Sunset.

The low sun blazed blinding in our eyes as we cantered homewards over the level hill-top. A sharp cry of "Ware mud!" from my riding companion startled me just in time to swerve slightly from a watery



CHAJUAL PLANTS; PEASANT RIDING.

patch in the broad track. What danger lay in that?

"It must be a deep mud hole to be wet at all when the rest of the road is as dry as dust," came in anxious explanation. "I was terribly afraid your horse might sink up to his girths."

Presently, when the sun set, as we dipped among the bosky hills, the sky showed a more exquisite variety of colours than I have seen anywhere else in the world. Imagine a brilliant three-quarter moon rising behind as we rode over the last dark-green and blood-red hued hill. Straight overhead the sky was intensely blue, shading lower down into a wonderful heliotrope, then a pale azure, turning to green, and next—Oh, next was a lovely yellow, dying in a faint rosy line, level with the ring of shimmering grey sea. And right on this blue and

yellow horizon, in wonderful contrast, there glowed one cloud like a crimson banner hung out in honour of the sun-god which had dipped below out of sight. Then the moonlight grew sharper, the shadows blacker, and lights twinkled in Valparaíso town, and from the ships in harbour, glowing brighter and multiplying as we rode into the town over the rough causeways, and down the dusty, steep streets.

Our ride on another evening has left a pleasant recollection in my mind. On the cliffs overhead grew strange-looking plants, like dead aloe sticks, ten feet high, with mops'-heads outlined against the sky. This is the *chajual*, a kind of agave, among the rare flowers Miss Marianne North came to Chili to paint. A little later and newly sprouted sticks will blossom with spikes of yellow-greenish flowers.

A Visit to the Capital.

Although I had been invited to stay at the British Legation in Santiago immediately on my arrival in Chili, from one cause or another my visit thither was delayed till the lingering heat of April had given place to May, with its expected winter.

Santa Lucia is a high rock, rising abruptly in the midst of the town, and was the first stronghold of the Spaniards, when Valdivia conquered the country with a handful of men, until southward the Araucanian Indians arrested his progress. Later on, it became infested by rascals, and there was even talk of blowing it up, when a citizen conceived the happy idea of turning it into an ornamental garden. We praised this public benefactor, Vicuña Mackenna (whose name, like many others of present importance in Chili, signifies descent from an Irish herd or mechanic), as we turned from the streets into the gates of the rock-garden. This much resembles the Château at Nice, only it is more steep. Encircling roads rise gently, shaded by pepper-trees and palms, while cacti, prickly pears, and geraniums run wild—the peeps of town and plain growing ever prettier, till, passing a fashionable restaurant for little dinners and “banquetes,” besides a chapel and open-air theatre, a flight of steep steps reaches the summit.

This was the “*mirador*” or view-point. A glorious view indeed!—for Santiago lay like a map below us. Farther spread the plain fringed by hills; but eastward the Andes rose in height beyond height, and sierra above sierra to the far white peaks everlastingly snow-capped. Looking down at the great alameda, which forms a straight line of trees for three miles through the town, I exclaimed, “It looks like a green river.”

“It *was* a river,” said Mr. Kennedy, who had accompanied us from the Legation. “The water has been dammed higher up under the hills, and diverted for the use of the town; but you see the original bed, and what a splendid street it makes!”

I was astonished to find what a great area Santiago covers; but this is because of the house-patios chequering it everywhere in tiny green squares, as seen from our eyrie eminence. These palm-shaded inner courts betray pleasant leafy glimpses as one strolls by open doors down the

sunny, dusty street. There are few *altos*, or upper storeys, except in the principal quarters; so that a city of equal size in Europe or the States would hold three times the population of Santiago. Also some of the houses of the great families are very outspread.

“Two of these, if fine, will sometimes occupy a whole *cuadra* or block,” said the Minister. And he took me in to see one of these, belonging to friends, that was much like a handsome Paris house, with its courtyard and richly furnished rooms; while the great wooden doors had square spy-holes and strong protecting gates, doubtless most useful during the late civil war.

A Morning Stroll.

My next morning's impression of the town was equally charming. We visitors hurried out early by ourselves, our host's duties necessarily occupying his forenoon—to our regret. The sunny streets were very noisy, but then so full of life and colour. Here we passed the fine building of the Congress Houses, and then turned off to the great square, the “*Plaza de Armas*,” and its big, if uninteresting, cathedral—folk must not be fastidious as to architecture in South America. On one side a shady arcade reminds one of Spain, filled as it is with booths, where birds, stationery, vegetables, and cravats were in succession pressed upon us by eager vendors. And from this arcade branched imposing glass passages with large, almost Parisian, shops (their goods indeed come each season from Europe), all showing that in fashion, as in almost everything else, Chili leads the van in the southern continent. Down by the river-bed the vegetable-market was a characteristic sight, although its former attraction—the old bridge, studded by sentinel-boxes—has, alas! been “improved” away.

Hundreds of huge osier-waggons filled the market-place, their oxen herded together in horned groups, and their disgorged contents of onions and melons or pumpkins piled on the ground, guarded by squatting half-Indian women, cooking the men's breakfasts over little brasiers, or selling cakes.

Then came visits to great country houses. Some boast vineyards, fine gardens, and hot-houses. Others picture-galleries and noble interiors, or stables full of English thoroughbreds, herds of purest English Durham cows, flocks of valuable English sheep. But in later book form these can be fully described. Next day our pleasant week was ended, so back to Valparaíso we regretfully departed.

When next I had the pleasure of revisiting Santiago the August snows powdered the Cordillera in shining whiteness, the beauty of the scene being only equalled by that of the Pyrenees as seen from Pau. This time my visit was to the K.'s, the next-door neighbours and friends of Mr. Kennedy, who joined our circle, or we his, most evenings. On some of these a party of eight, clothed in evening dress and their right minds, might have been seen seated round a table where stood a round disc, all holding telephone-receivers to their ears in silence. Which meant that the opera was performing; and this is the fashionable way of listening to the singing when disinclined to go out.

One exciting day a Chilean lady, whose letters were published in the "Times" during the civil war, called and carried me off to hear the great debate of the day in Congress. Should amnesty be extended to *all* those who took part in the late civil war?—yea or nay? The *Síes* were raining from the crowded liberal benches as the president called the names for voting; while *No!* was yelled by three solitary conservatives. Then a storm of hisses and cries burst from the galleries above—the president's bell rang on and on for order, and

Spain were rent by the fermenting vintage of new thought and strivings towards ideal progress. As to the story of Lo Caños, it is as follows:

During the civil war Balmaceda heard that a plot was on foot to seize the southern railway, cut the wires, and stop his troops. A number of boys of the best Santiago families had been incited to dare the deed—the eldest being barely twenty, the youngest not fifteen. They stole out to the tryst, the small farmhouse of Lo Caños, five miles from Santiago. There they were surprised by a



A DESPACHO AT A STREET CORNER IN SANTIAGO.

loud *vivandos* surged up from an anxious mob in the halls below.

Now, though it is two years since the war, small wonder that blood still boiled and many hearts were bitter, for the crux of the matter lay in this—*Were the Lo Caños murderers to be forgiven?*

To my mind, Lo Caños was the saddest episode of the fratricidal struggle, when families were torn asunder—some fighting for established laws, others for fuller liberties. The old wineskins which had served since Chili threw off the yoke of

detachment of Balmaceda's soldiers, who set fire to the dwelling, and as the lads rushed out they were butchered, and either thrown back into the flames or horribly mutilated. Eight, who probably did not attempt fight, were taken prisoners and marched back to town.

Now whether Balmaceda gave orders, or that his wishes were evilly misinterpreted by his lieutenants, or some one blundered, may never be rightly known. But a few hours later these eight wretched boys were taken back and shot against the walls of

the farm. Later the charred remains of all the victims were brought to Santiago mixed up in sacks, as was related to me by one who went hoping to identify a corpse, and witnessed the ghastly spectacle. Only two boys somehow escaped. They were helped to hide by some pitying *rotos*, or roughs, in the brushwood, and saw the tragedy and their comrades' fate. Only after some weeks they ventured to return secretly to their homes, hardly recognisable from the terrible shock, and bowed like old men. The gloom cast over Santiago afterwards was great. People skulked about the streets, their looks black with fear and shame, livid from rage.

And now the vote was carried to "draw a veil over the past," as one deputy expressed it.

My friend, Doña Anita de J., with her husband and some of his fellow members, then showed me the two handsome houses, and fine marble hall connecting them, where on June 1 the president in state declares Congress open; also several spacious committee-rooms and a library, where we met and chatted with some ministers, senators, and deputies.

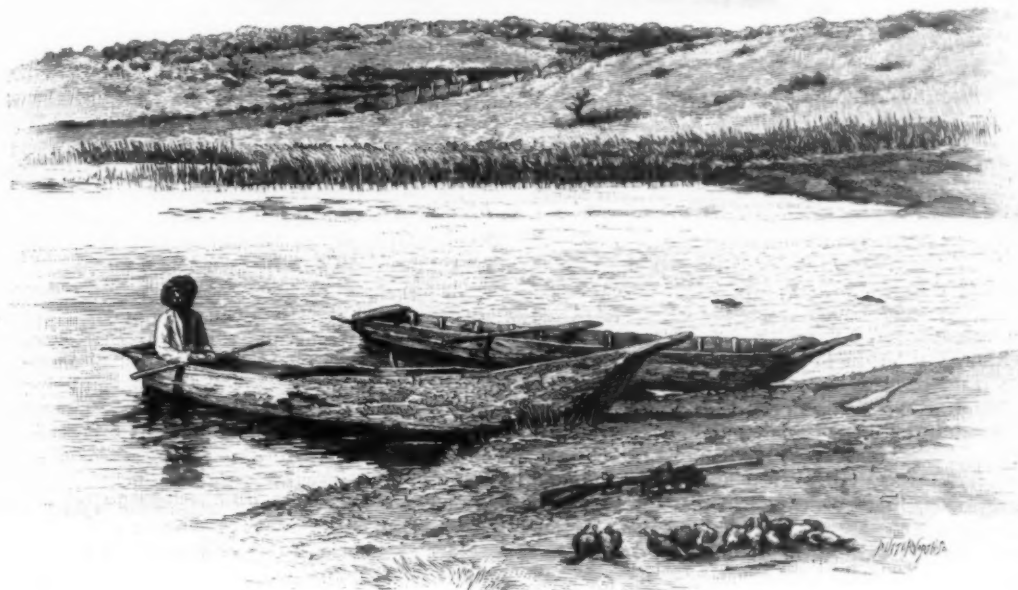
Next morning these friends drove me round various schools. The public spirit and eagerness for the real good of their country I met with among the well-bred Chilians is remarkable—a striking contrast with the apathy in the neighbouring republics

of all but those who are struggling for places and pensions. The great ladies are especially interested and powerful in politics; the opinions of several being quoted with as much respect as those of leading men, while their *salons* are the society camps of their parties.

We first visited the Escuela Profesional, a government institute where various professions are taught to girls, free of expense. The low rooms surrounding two courts were buzzing with the chatter of many maids, from sixteen to eighteen years old. One class was for cooking, where we tasted good pumpkin *dulce*, or jam; others were taught dressmaking, cardboard-box making, artificial flowers, embroidery, hand painting on fans, etc., and the manufacture of gloves, excellent in cut and kid—a boon here, where one pays so dearly in the shops for those imported from Europe. Above all, book-keeping is the most valued instruction of the school, enabling girls for the first time here to take situations of trust.

My guides were all eager to improve the status of women in Chili. "Men respect our sex more now they see that girls can support themselves," said the señora, whose zeal for establishing country schools is praised in the late Miss North's "Travels," when that accomplished flower-painter stayed with her in Chili.

MAY CROMMELIN.



LAKE QUINTERO.

EARLY CHRISTIAN BUILDINGS IN IRELAND.

BY GODDARD H. ORPEN.

THE CHANCELLED CHURCH.



CHANCEL OF REEFERT CHURCH, GLENDALOUGH.

IN a previous article we traced the growth of the Irish church from the primitive beehive oratory of dry rubble—itsself a modified form of the pre-Christian dwelling—to the single-chambered church with vertical walls, and high-pitched stone roof resting on a barrel vault.

The next step was the addition of a chancel.

When the chancel was first introduced it is impossible to say with any confidence, but it can hardly have been much before the beginning of the eleventh century. Even after that date churches—somewhat larger in size than those we have hitherto described—were built without any chancel at all. In the transition period a small chancel was often added to the existing church, which thenceforward formed the nave; but sometimes, as in the church on Friar's Island, near Killaloe, the original stone-roofed oratory was retained as the chancel and a new and larger chamber added to it as a nave. The most primitive type of double-chambered church is to be found, not in Ireland, but in Scotland. At Lybster, in Caithness, the church consists of nave and chancel, both entered by similar flat-headed doorways with inclined jambs of the primitive form. But this type, if it ever existed in Ireland, has disappeared there. To judge by existing remains, we should say that the introduction of the chancel took place about the same time as the introduction into general use of the round arch, for in general the opening from the nave into the chancel is a regular round arch. Indeed, the only exceptions we can recall are in cases such as that of St. Kevin's Kitchen at Glendalough, where the

chancel opening was cut in the existing east wall in the shape of a round arch, but no true arch was inserted.

Reefert
Church,
Glendalough.

As an example of the ordinary form of an early chancel arch we give an illustration of the chancel of the Reefert Church at Glendalough. This church, which derived its present name from having become the burial place of the kings of the district, is situated between the upper lake and the mountains, about a mile above the principal monastic establishment at Glendalough. It has a square-headed doorway with inclined jambs of the primitive type. At one side there is an apparently unfinished architrave moulding. All the external angles of both nave and chancel present those curious projecting stones an account of which was given in our former article together with a suggestion as to their use.

The chancel arch—the full width (8 ft. 9 in.) of the chancel—springs from the walls without imposts and without ornament of any kind. The east window is round-headed, cut out of one large stone, and moderately splayed within. It soon, however, became common to arch the east window, at least on the inside, thus permitting a wider splay. This may be seen at another church at Glendalough, called Trinity Church, which, as originally built, was in every other respect almost exactly similar to the Reefert Church. The windows in the early churches were not intended to be glazed; so they were made small on the outside to keep out the rain, while within they were widely splayed to let

in as much light as was consistent with the small external aperture. Triangular-headed windows were not uncommon, especially in the south wall of the chancel.

According to an ancient life of St. Kevin, the founder of Glendalough, believed to have been written at the beginning of the twelfth century, the Saint "went to live alone in the upper part of the valley about a mile from the monastery. Here he made a *mansiuncula* (probably a wattle hut) in a narrow spot between the mountain and the lake where there were dense trees and clear streams. And he remained a solitary hermit for four years in various places in the upper part of the valley, in fastings and vigils oft, without a fire and without a house, and it is uncertain whether he sustained nature on roots of herbs or fruits of trees, or by divine food, for he never told this to anyone. His monks, however, built a *clara cella* (probably a beehive cell) in the desert where he dwelt, on the southern side of the upper lake, between it and the mountain, where now is a celebrated monastery (*clarum monasterium*), in which the most holy men always dwell, and it is called in Irish *Disert Coemgen* (Kevin). There several of them dwelt, and the wild beasts of the mountains and the woods, becoming quite tame, used to follow St. Kevin and drink water out of his hands. And after the aforesaid time the Saint was brought from the desert places against his will and made to dwell with his monks in the aforesaid cell." Some years afterwards he was induced to remove his monastery to the east of the smaller lake, where gradually the famous city of Glendalough rose up in his honour.

I have given the substance of this passage at length, partly because it draws a graphic picture of the anchoritic life, and shows how the very fame of the anchorite led to the establishment of the monastery, but mainly because it helps to identify the Reefert Church above mentioned with the monastic church of the time of the writer. The locality of the existing church could not be better described. The name Disert Kevin occurs also in the Annals of the Four Masters under the year 1108. Dr. Petrie, however, goes a long step further, and identifies the church with the *clara cella* built for St. Kevin, who died in the year 618. But the above passage, on which he relies, hardly bears this interpretation, even if it could be looked upon as an authority on the point; and at any rate the chancel and chancel arch cannot possibly have so great an antiquity. Nevertheless, this church is probably the oldest church at Glendalough. A severe simplicity still characterises the structure; but we see that foreign influences are beginning to make themselves felt; and from this time forward Irish church architecture, while preserving its individuality and many of its peculiarities, ranges itself more in line with foreign examples.

In later churches of this type, however, a certain amount of decoration was sometimes employed. In the church now known as St. Mary's, Glendalough, the west door is a fine example of the primitive type with horizontal lintel and inclined jambs; but it has a well-defined architrave moulding running round it, and there is a diagonal cross with circles at

the extremities and intersection cut on the soffit of the lintel. In other cases the square doorway is recessed so as to give the appearance of two orders. In Maghera Church, county Londonderry, these two orders are covered with carving in low relief. There is a representation of the Crucifixion on the lintel, with several figures on each side of the Cross. The jambs are covered with volutes and sinuous patterns with alternate sprays. On the inside of this doorway the square opening is recessed behind a round arch, thus showing that the horizontal lintel was still retained after the construction and use of the arch was known. Other decorative features, sparingly employed, may be occasionally observed in churches of this type, but none so striking as on this doorway. There are, however, sufficient examples to enable us to say that, even before the introduction of the romanesque style, the Irish were beginning in a tentative way to add to their churches a rude form of ornament.

A Celtic
monastery
circa
A.D. 1000.

Before passing to the romanesque style, we may briefly indicate the general appearance of a Celtic monastery of the more important class, such as Armagh, Clonmacnoise, Kells or Glendalough, about the close of the tenth or the beginning of the eleventh century. We must, on the one hand, entirely put aside from our minds all ideas formed from an inspection of the great structures built towards the end of the twelfth and in the following centuries for Cistercian, Dominican, or Franciscan monks, with the stately ruins of which most of us are familiar. On the other hand, we may expect a considerable advance from the primitive oratory and group of beehive cells or wattle huts which constituted the monastic buildings of the sixth and seventh centuries.

About the year 1000, the monastic city was still generally surrounded by a vallum, called a *caisel* (cashel) or *cathair* when of stone or of earth faced with stone, and a *rath* or *lis* when of earth only. The double-arched entrance gateway of the cashel at Glendalough is still to be seen, and was at one time surmounted by a tower. At Armagh the vallum is always spoken of as a rath. The principal stone church (*damliag*) consisted of simple nave and chancel, with perhaps the addition of an *erдам* (= side-house), believed to have been used as a sacristy and a storehouse for the sacred utensils. It was from the western erдам of the great stone church of Kells that, in the year 1006, "the great gospel of Colum-Cille," now known as the Book of Kells, was stolen. "This was the principal relic of the western world, on account of its singular cover; and it was found after twenty nights and two months, its gold having been stolen off it, and a sod over it."

As we have seen, there was generally more than one church within the monastic enclosure. Sometimes the primitive *dertech*, or oratory of the founder, when of stone, would be preserved; and at Clonmacnoise, at any rate, some of the churches were mortuary chapels erected by neighbouring chieftains for their families.

The "great house of the abbot," like the cells of the monks, was, perhaps, generally of wood, but

in some instances it was of stone ; and probably in Colum-Cille's House at Kells and in St. Kevin's Kitchen at Glendalough we have examples in stone of the Abbots' House. The houses of the monks must have occupied a considerable space, and in most parts of Ireland were probably of wood. Then there was the kitchen (*cuicin*) and the refectory (*proinntech*), both probably of wood. At least, though these buildings are mentioned, no example has been known to survive. It is thought, too, that there was generally a *scriptorium*, or chamber where writing and illuminating—not the least interesting occupations of the monks—were carried on. Certainly it is difficult to imagine that the exquisite work done under these heads could have been achieved in ill-lit cells ; and in the burning of Armagh, in 1020, the "house of the writings," or library, is specifically mentioned as having escaped. Another building which shows the monks in the pleasing character of dispensers of hospitality was the guest-house (*Tech aoideadh*). At Armagh it is called the "fort of the guests of Christ," and was, perhaps, in a separate enclosure. Finally, the stately round tower, erected near the doorway of the church, gave a centre and a unity to the group ; while the stone-cutter's art was lavished on sculptured cross and on many a memorial slab in "the garden of the monks."

In connection with the monastery, but possibly not inside the enclosure, were various domestic offices ; for farming operations were carried on by the monks. A kiln for drying and a mill for grinding corn are specially mentioned, and a cattle-shed. The more important establishments, too, attracted to their neighbourhood skilled artisans capable of carving the stone crosses and of covering the bell, book, and staff of the founder, as well as his bodily remains, in exquisite metal shrines.

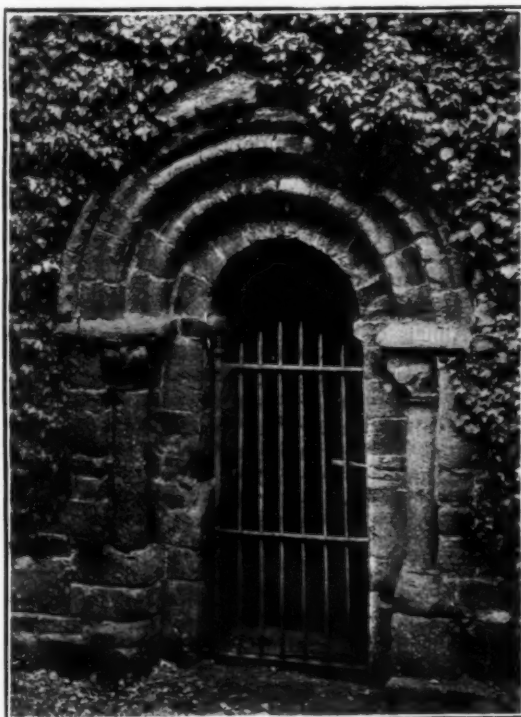
HIBERNO-ROMANESQUE CHURCH.

So far as we have now traced the development of Irish architecture, we can see that, from whatever quarter the church builders derived their ideas, it was not from Rome. There is no trace of a basilican church in native Irish architecture. Their sacred buildings have neither side-aisles nor circular apse. As Mr. Freeman says, "they derived not their origin from the gorgeous basilicas of Constantine and Theodosius ; but in them we behold the direct offspring of the lowly temples of the days of persecution, the humble shrines where Cyprian bent in worship, and which Valerian and Diocletian swept from off the earth." In the eleventh century, however, we can trace the beginnings of an ornamented romanesque style, which, if it never attained to the level of grandeur, certainly reached a point of great beauty. This was one of the many local forms which the romanesque, or debased Roman, style assumed in Western Europe, and though in its later phases it resembled in many points the Norman architecture in England, it was not originally derived from it, and to the last retained distinct characteristics. In Ireland the romanesque church still remained small in size and simple in plan—a small rectangle for the nave, and a still smaller

one for the chancel. In two late cases—Cormac's Chapel at Cashel, and (as originally built) the church at Kilmalkedar—a small square extension at the east end may perhaps be likened to an apse. The principal ornamentation was on the recessed round-arched doorway, on the chancel arch, and, more sparingly, round the east window ; while in some of the later churches blank arcades relieve the monotony of the walls.

Perhaps the earliest existing church showing romanesque features is that called by Petrie St. Flannan's, at Killaloe. The famous Brian Boruma, who fell at the battle of Clontarf in 1014, is recorded to have built churches at Killaloe and Iniscaltra ; and it is an interesting subject for inquiry whether the existing romanesque buildings at these places can be attributed to him, or, in other words, whether we can ascribe to Brian's time the introduction of the romanesque style into Ireland.

Lord Dunraven and Miss Stokes have followed Petrie in identifying the church known as St. Caimin's at Iniscaltra with Brian's building ; but to judge by Petrie's drawings, the romanesque features of this church, namely, the west doorway (now nearly destroyed) and chancel arch, exhibited Norman details—such as the chevron moulding—which, it



DOORWAY OF ANCIENT CHURCH AT KILLALOE, SOMETIMES CALLED ST. FLANNAN'S.

(From Lord Dunraven's photograph.)

is thought, were not evolved in Normandy itself until a later period. As this doorway and arch were manifestly insertions, and the chancel itself

an addition, it seems more probable that Brian's work is represented only by the walls of the nave.

On the other hand, St. Flannan's Church at Killaloe is assigned by Petrie to a much earlier date than Brian's time—to the seventh century, in fact—and he supposes that Brian's Church there was on the site of the existing cathedral, and has been entirely superseded. Killaloe, however, does not appear to have been a place of any importance prior to the building of Brian's royal *dun* there. Modern archaeologists, indeed, will not feel the difficulty expressed by Petrie of assigning this church to so *late* a period as the commencement of the eleventh century. The doubt is rather if we can place it so early.

The church consists of nave and chancel. The nave is 29 ft. 6 in. by 18 ft. internal measurement, which is very near the size of the nave of St. Caimin's. Its stone roof resting on a barrel vault has already been described. The west doorway, of which we give an illustration, has its arch ornamented with simple rounds and hollows, and a drip moulding cut on its underside into square notches. The arch springs from heavy chamfered imposts supported by a pair of stumpy columns with carved capitals, the one showing a sort of Ionic scroll, and the other two animal forms. The jambs of the doorway incline. The chancel arch has similar imposts and inclined jambs, but is quite plain. It is only 6 ft. 6 in. wide under the imposts. The chancel itself has disappeared. There is a deeply splayed triangular-headed window in each side wall, and the croft has a round-headed window in the west, and a triangular-headed one in the east, both with inclined sides, and both closely resembling some of the windows of the round towers. The masonry of the whole shows a considerable advance on Colum-Cille's House, and even on St. Kevin's Kitchen, with which, as regards the method of roofing, it has already been compared.

There is nothing in all this, except possibly the west doorway, that suggests a later date than Brian's time for this building, and I do not think that even the doorway has any feature which can be called exclusively Norman. It should rather be classed with the primitive romanesque doorways erected in England in Saxon times, to some of which it bears a considerable resemblance. Certainly there seems to be much less difficulty in identifying this building with Brian's Church at Killaloe than in supposing the west doorway and chancel arch of St. Caimin's to be Brian's work. According to Mr. T. J. Westropp, it appears to be still locally known as "Brian Boru's vault." At any rate, the date of Cormac's Chapel at Cashel (1127-34) is not disputed. This famous structure comes comparatively late in the series of romanesque churches, and a considerable interval of time must have elapsed between the earliest examples and it.

After ornament was extensively introduced, examples vary so much that it is impossible to give a general description applicable to all. We may, however, note some other points besides the diminutive size which seem to distinguish Irish romanesque from Norman architecture in England. The doorways, though now recessed and round-headed, are still characterised by the inclined jambs

inherited from the earlier square-headed style, but no longer necessary when the true arch was introduced. Instead of being composed of separate columns with well-marked capitals and bases, such as are generally seen in Norman work, the sides of the doorways are often merely recessed piers with the projecting corners rounded off and vertical groovings added, which give somewhat the appearance of columns. These piers are separated from the recessed arch mouldings only by a horizontal band of sculpture, frequently displaying archaic human heads with intertwined hair in low relief. A row of human heads, too, sometimes forms the principal ornamentation of the round arch, though chevron, lozenge, pellet, and other mouldings familiar in Anglo-Norman work are met in great variety. In some instances the sides of the doorway, whether piers or regular columns, and even the recessed mouldings of the arch above, are covered all over with delicate incised patterns of extraordinary variety and exquisite refinement, suggesting rather the intricate designs on an illuminated manuscript than the work of a sculptor's tool.

As an example of the later style of enriched romanesque we may take the doorway of the church at Freshford, the ancient Achadh-ur, about eight miles

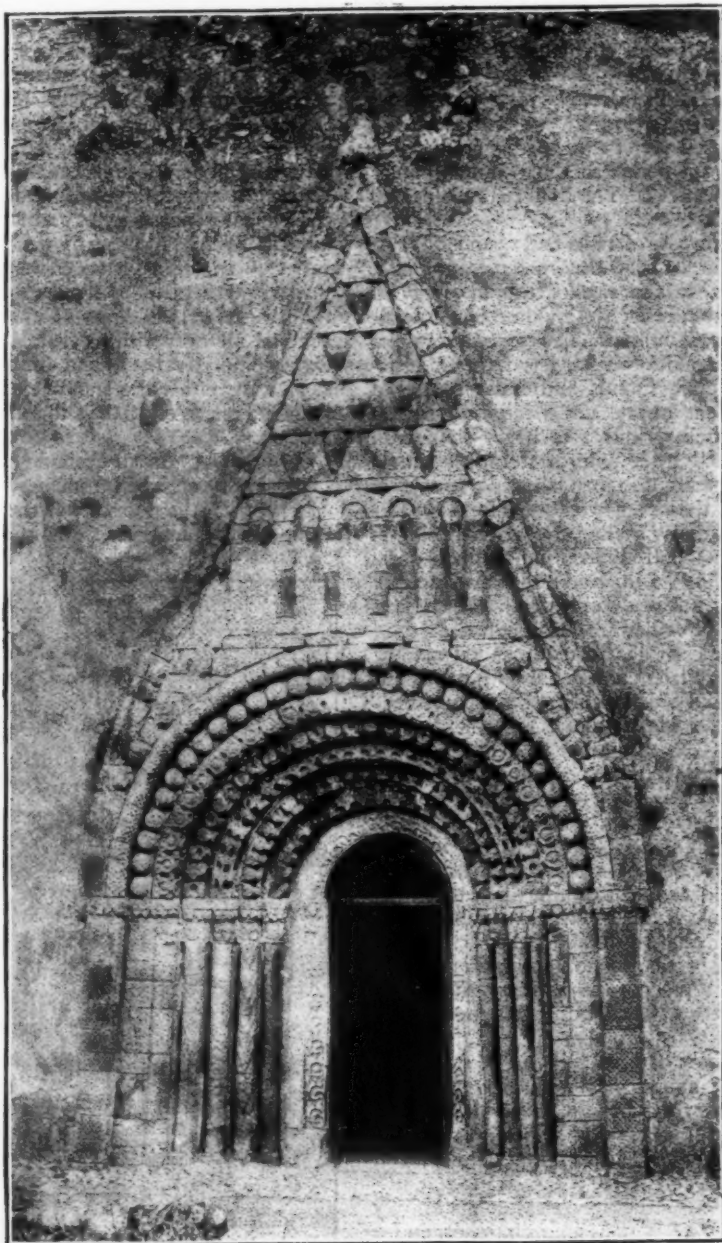


DOORWAY OF CHURCH AT FRESHFORD (ACHADH-UR), CO. KILKENNY.

north-west of Kilkenny. It is somewhat out of the way, and is less familiar than the romanesque churches at Cashel and Clonmacnoise. The church is still used for service, but has been

modernised, and interest centres in the old doorway. This is a deeply recessed porch, consisting of four orders under a high-pitched gable. The label has a pellet ornament, and

terminations of the soffit. This order is supported at each side by a double column under one cap, ornamented with human heads and lacertine creatures. The next two orders have different



DOORWAY OF CLONFERT CATHEDRAL, CO. GALWAY.

(From Lord Dunraven's photograph.)

outside its extremities are two sculptured panels, that on the right showing two long-robed figures, and that on the left a man on horseback. The first order of the archway shows an elaborate fret ornament on face and soffit, with a human head for keystone, and grotesque animal heads at the

forms of the chevron pattern and are supported by columns with scalloped capitals and richly carved bases. The doorway itself has square inclined jambs. About half-way up on each side a plain Greek cross is incised, and round the arch is an Irish inscription asking for a prayer for the builder

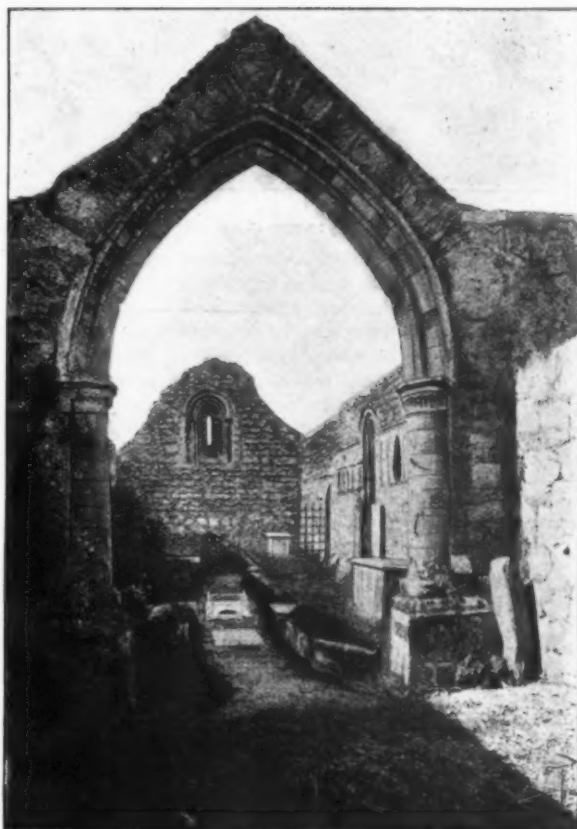
and for the persons who caused the church to be built. The names in this inscription have not been identified, but the doorway can hardly be earlier than the early part of the twelfth century.

Perhaps the finest remaining example of Irish romanesque is the doorway of Clonfert Cathedral, situated in the county Galway, near the Shannon. The religious establishment here was originally founded by St. Brendan, "the navigator," who spent some years in searching for the Land of Promise in the north-western ocean, and who is even credited by some with having anticipated Columbus in the discovery of America! Whatever buildings were erected here prior to the twelfth century were repeatedly plundered and burnt. Their situation near the Shannon left them peculiarly exposed to the raids of the Northmen, whose evil example was again and again followed by plundering native tribes. The place was burnt in 1164, and again in 1179, and there is the statement of a seventeenth-century writer, which is borne out by some historical evidence, that the church was rebuilt by Conor O'Kelly, chieftain of the district, who was killed in 1180.¹ The doorway here illustrated probably dates from about this time. Its innermost member is obviously a later addition. There is a steeply pitched pediment, ornamented with arcades and sculptured human heads, and supported by square piers covered with interlaced patterns. Next, there is the label or hood-moulding, also covered with interlaced work, and an order of closely set bosses supported by piers. Then come five orders supported on each side by five columns, all most elaborately ornamented with a marvellous wealth of intricate design. The deep undercutting of the arched orders contrasts pleasingly with the delicate ornamentation of the supporting shafts. "There is not," says Mr. Brash, "a square inch of any portion of this beautiful doorway without the mark of the sculptor's tool, every bit of the work being finished with the greatest accuracy." Even the bosses next the hood-moulding have their surfaces covered with delicate engravings, showing a wonderful fertility of invention.

As an example of the transition to the pointed architecture we may take the cathedral of Ardmore, county Waterford. Its remains, together with a perfect Round Tower and the little oratory of St. Declan, make a most interesting, though little visited, group. Our illustration of the interior, looking west, will sufficiently show the general character of the edifice. The cathedral is a long oblong building, divided into nave and chancel by a fine semi-Norman arch. The doorway, no longer as usual hitherto in the west end, is in the north wall of the nave. An ogham-inscribed stone, taken from the wall of St. Declan's

oratory, stands by the chancel-arch. These ogham inscriptions, the letters of which consist of groups of straight lines cut up to or across the edge of the stone, belong to the very earliest Christian period, and some of them were possibly erected in pre-Christian times. That there was nothing sacred in their character might be inferred, if from nothing else, by the fact that they were not infrequently, as in this case, used in churches as mere building material.

A peculiar feature in this church, and one which marks some of the later examples of Irish romanesque, is the blank arcades by which the monotony of the walls is relieved. They may be here seen on the north wall in the interior, and on the exterior of the west wall. The latter, which are here illustrated, had their panels filled with figures and scriptural subjects. Beneath the left-hand semicircular arch we can recognise a man on horseback, the Temptation of Adam and Eve, and a warrior kneeling before a bishop; the latter is locally regarded as the conversion of the pagan chieftain of the district by St. Declan. Under the right-hand arch are Solomon's Judgment above, and the Magi coming with gifts to the infant Christ below, the stable being quaintly indicated by a cow.



ARDMORE CATHEDRAL, CO. WATERFORD.

We have now passed in rapid review some of the leading types of sacred buildings of the Celtic period in Ireland. We have observed a regular progression from the rude beehive cell, hardly

¹ Miss Stokes places the rebuilding in 1167 after the burning of 1164; but she does not notice the burning of 1179.

differentiated from the pre-Christian dwelling, to the elaborately decorated romanesque church of the latter half of the twelfth century. We have found that, while the earlier examples represent types which have disappeared, or are but very rarely met with elsewhere, the romanesque churches, though approximating more and more closely to the smaller Norman examples found in England

and Normandy, have characteristics of their own, connected with local tradition and local art, which entitle them to a separate study and to a distinctive name.

Any survey of Irish sacred buildings, however slight, must include a notice of the Round Towers and of the sculptured crosses. These subjects will accordingly be dealt with at a future time.



EXTERNAL ARCADES, WEST WALL, ARDMORE CATHEDRAL, CO. WATERFORD.

A Choice.

IF I might choose one gift God's hand could
yield,

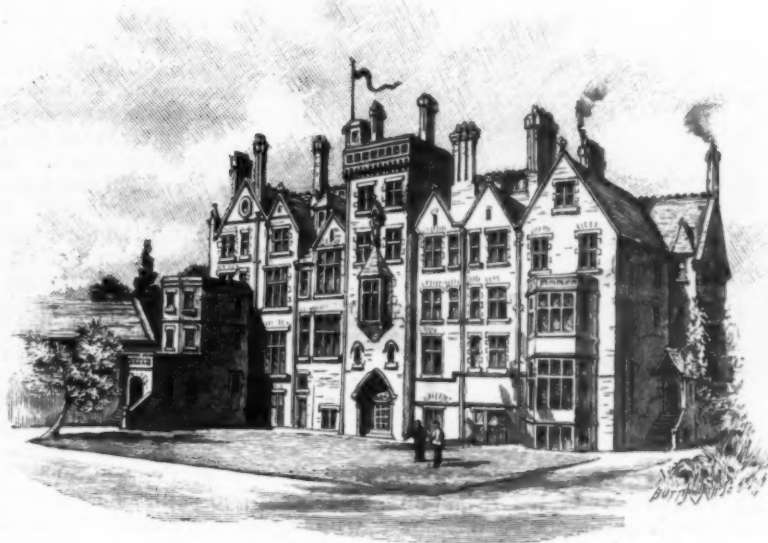
What would I crown my life withal to-day?
With love, or gold, or fame, or absolute sway?
Or beauty such as women's who have thrilled
Men's souls and senses till no more they willed
With their own wills, but only must obey?
Or would I choose to have my mother-clay
Lapping one round whose pain at last were
stilled?

What would I choose, and what would I forego?
Would all desire go up in that swift cry,
Were it one little minute's space, to know
God's love, which passeth knowledge verily,
And, ere the glory faded off, to die?
Would God that I were sure of choosing so!

EMILY HICKEY.

THE LONDON SETTLEMENTS.

BERMONDSEY.



BERMONDSEY SETTLEMENT.

The Object,
and Ideal.

THE Bermondsey Settlement is situated in a quiet street—Farncombe Street—off the well-known Jamaica Road, the local boulevard. Its general aims and objects are stated as follows: To bring additional force and attractiveness to Christian work; to become a centre of social life, where all classes may meet together on equal terms for healthful intercourse and recreation; to give greater facilities for the study of literature, history, science, and art; to bring men together to discuss the general and special social evils of the day, and to seek their remedy; to take such part in local administration and philanthropy as may be possible, and so to do all this that it shall be perfectly clear no mere sectarian advantage is sought, and that it shall be possible for all good men to associate themselves with the work. It will be seen that these aims materially differ from those of some kindred institutions. Here is a little community of men and women who have resolved, on broadly Christian grounds, to live in the midst of a very large, poor population. The pioneer in this particular movement three years since was a young Wesleyan minister, the Rev. J. Scott Lidgett, who now holds the position of Warden. Mr. Lidgett and his friends desire as Christian citizens "to live not unto themselves," but to turn their hands to any form of social service which requires to be done, whether in church, in educational affairs, in administration, or in the various enterprises

of sound philanthropy. This is the explanation of the growing variety of their activities. The kingdom of Christ embraces all human powers, and must satisfy all human wants. His service will only be complete when every interest and need of men finds some unselfish man or woman ready to minister to it. No doubt a Settlement is a somewhat artificial expedient, and can only faintly set forth the good which would come to all if men of different ranks and interests lived together in mutual intercourse and co-operation. But it is the beginning of a better state of things.

In his last report the Warden defines the aim at Bermondsey in words that may well be pondered in all our cities:

"Our ultimate aim is not to establish a mission, or an Educational Institute, or to assist a certain number of charitable institutions. It includes all these things, and we are doing all of them with increasing power as each year passes. But we cannot say when any one, or all, of these enterprises flourishes that we are satisfied. We are trying to proclaim the need and duty of a larger spirit of social service, and of a more brotherly fellowship of rich with poor, than London at present manifests, and we are assured that until that spirit is more fully present the kingdom of God cannot be greatly advanced. We are not setting up any Utopian standard. All that we are, for the present, striving for is that poorer London should come to have the same advantages as provincial towns of moderate size. The population our work affects is about 150,000. Contrast it with provincial towns of that size. There wealth and poverty are neighbours. The rich worship with the poor; their wealth builds and sustains churches, in which their families work. Institutions—educational, medical, and charitable—spring

up from the generosity of wealthy and enlightened citizens. Generation after generation, their families contribute to the administration of public affairs and philanthropic undertakings, the service which only education, leisure, riches, and highly trained Christian character can give."

South London has its churches starved because members and money have removed, almost entirely

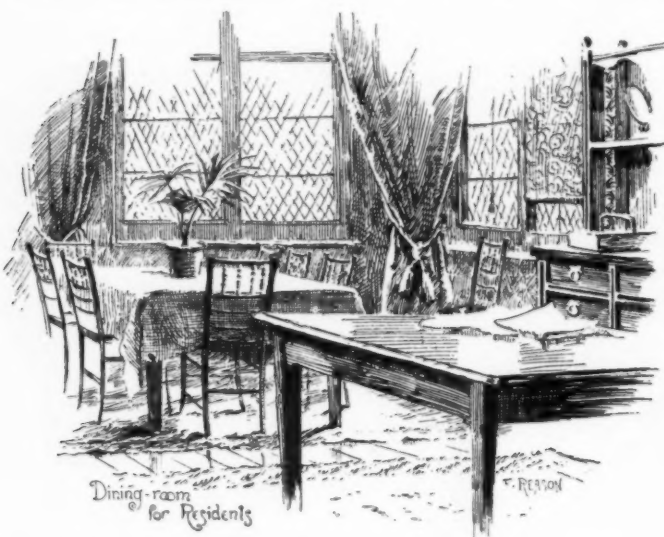
personal attention can be given to the students than would be possible there. But the second great aim is to lift the students above the monotony and drudgery of their life by giving them the opportunity for wider culture, for healthy recreation, and for social intercourse. The students are, above all, trained for social service. The

poorer parts of London do not want to be pampered, but to be inspired. If this college produced a spirit of dependence, it would do almost unmixed harm. What needs to be aroused is the sense of social duty, the civic spirit, and the will to co-operate with unselfish bent for the common good. Many are taught to improve their gifts, and then use them for others. Thus they are finding a higher temper and a wider range of interests. For the young artisan, shop-assistant, or clerk to be called upon to assist in establishing University Extension Lectures, or in providing good music for his neighbours—what is this but to supply a liberal education in the practical duties of a Christian citizen?

For the educational work, the session of the

working men and women's college at the Settlement commences in

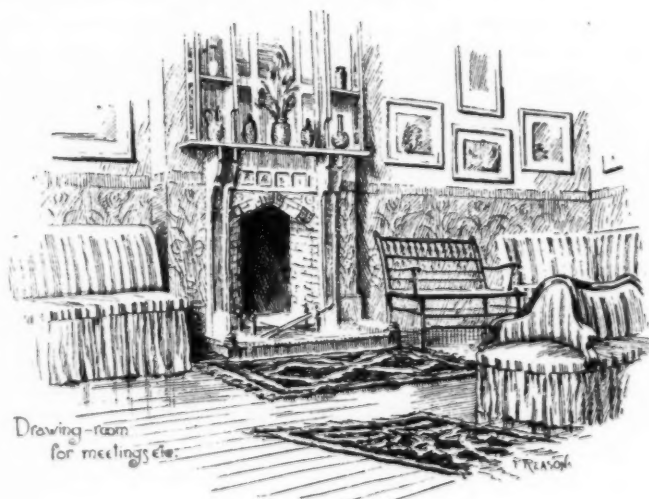
October. The entries for all subjects last year were 1,568, representing about eight hundred students. The groups of subjects comprised art, history and literature, languages, mathematics, music, physical science, political science, technical education, commercial education, and theology. The total number of entries was practically the



Dining-room
for Residents

unblessed by the benefactions of the rich, with scarcely any young people of education and leisure to minister to the people, and with a spirit of distrust and defiance steadily growing. Redemptive ministries languish, the warden tells us, because the labourers are too few to carry them on. In the prosperous suburbs are multitudes who could change all this were but their hearts moved by a generous enthusiasm for God and the people. And those who know how much a handful of devoted men and women can effect amongst the multitudes, yearn for a plenitude of labourers.

How to Improve Citizen-ship. A few words may be permitted as to the general aim of the educational work. And, first, it is to bring within the easy reach of all the means of fitting themselves for the work of life, the narrower work of earning their living. Thanks to the new code for evening schools, this end will be increasingly served by continuation schools under public management. But even when such schools have come into perfect operation, there will be abundant room for the teachers of the new society. The age for admission in their classes is fixed high, so that members may join after they have passed through continuation schools. Those who know how hard a life is lived by the young people in these districts, will at once realise how much more restful and inspiring the classes can be made in the Settlement than is possible in a school; and, further, more



Drawing-room
for meetings etc.

same as in the previous year, but spread over an increased number of subjects. The work has shown a steady advance in the constant addition of new classes and in the growing efficiency of all the teaching. The students came from all parts of Bermondsey and Rotherhithe,

after hard work in warehouses, offices, shops, or as artisans.

University Extension Lectures are held; great interest is taken in them, and several of the students have passed the examination held by the London Society for the Extension of University Teaching. A musical society has made great progress, and public performances have been given at the Bermondsey Town Hall before large and appreciative audiences.



"Cakes & ale"
"Cold mutton night!"

The Warden is a great believer in the power of music. While Oxford House and Toynbee Hall attract numbers by oratory, the Free Church institutions seem to prefer sacred music. Social reformers believe in developing the latent love of people for art and music, and think that the awakened interest would lead to a culture and refinement much to be desired. The pity is that we do not get more musical gatherings for the people.

Another feature of these Settlements is the influence they are beginning to exert in local administration. Our immediate predecessors had a panacea for the ills and woes of civil life. It was model dwellings and better housing. Now it is seen that improved dwellings are of little avail unless the dwellers be improved. And an important step towards this amelioration is to get representation on the public boards. The advance of the power of the democracy can only be an increased safeguard to the commonwealth when the citizens themselves take a general, intelligent, and continuous interest in the good governance and pure and efficient administration of public affairs. It is necessary first to dispel the dull stupor and leaden apathy with which the vast majority regard all public questions. These new institutions have inaugurated a better policy. At Bermondsey, the Warden is a Guardian, and two ladies, Miss Simmons and Miss Odell, were returned to the Board of Guardians in 1893. Mr. Lidgett has been chairman of the Rotherhithe Infirmary Committee, and the ladies have acted on the Out-relief Committee.

The Saturday-afternoon excursions are a novel movement. Every Saturday in the summer a little party of children, selected from the six nearest schools in turn, assembles at the Settlement. Thence they are taken by young ladies to see some one of the sights

of London; for example, the Tower, Westminster Abbey, the Houses of Parliament, the British or South Kensington Museum, or for a ramble in Greenwich Park. The children are selected on the ground of regularity and good conduct. These afternoons not only supply much enjoyment to those who take part in them, but they are of genuine educational value. In the winter and spring, Happy Evenings for girls are conducted by ladies in the two nearest Board Schools, which are situated in the midst of the poorest part of the population. And now we come to the Lidgett specialty.

A brilliant thought one day struck the Warden. Why not, in the long days of summer, organise games in the commodious playground of the Settlement, and also in those of the schools? It was done, and Miss Crawford, a member of the association formed to help forward the work of the Settlement, took charge, and at once became a great favourite. Rounders and other outdoor sports were learned for the first time. Here was a lady who set herself with diligence and kindness to this benevolent aim. In a few short weeks more her life-work was finished, for during a summer holiday in Switzerland she was accidentally drowned. The more one sees of the conditions under which thousands of children grow up, the more urgent appears the need of some larger provision of health-giving pastimes. The playgrounds must be more continuously used as a means to happy social life. Think of the cruel fact that families who live in one or two rooms can have no games at home!



Bermondsey & Egypt
at the British Museum.

They are driven into the streets, an inhospitable nursery on a winter evening at the best, and but too often a school for the undoing of all the intellectual and moral education of the daytime. This conviction has fastened itself on the Warden's mind. His own expressed opinion is:

"Many a time I come home saddened, and ashamed of what I have seen and heard from the groups of children for whose play-hours no one cares. Yet how easy to remedy this! There stand the schools, which would become better places for learning if they suggested, not only thoughts of lessons, but also of joyful play; and all round us in prosperous homes are multitudes of youths and maidens, full of joy and fun, of zest in all kinds of sport, wanting only the highest happiness, that of sharing their joy with the little brothers and sisters of Jesus Christ whose pale faces, rough voices, and horse-play in the streets tell us how little brotherly and sisterly love they have known. Multitudes of other little ones there are, whose voices are never heard in the streets, who are screened by thoughtful parents from contamination; but great is the price of dulness paid for security from harm. Many well-to-do young people shrug their shoulders at what seems to them the restless meddling of philanthropists, or at least feel that they themselves are not qualified to *work* for others. But can you not *play* with them, and for them, I ask? Scatter the gloom of our philanthropy by spreading the brightness of your laughter. There is Christ's work for you. I see unbounded possibilities of every kind of good if the children of the rich would come down to our courts and alleys to share their play, and hand it on before they are tired of it to the children of the poor."

Out-of-door
Work on
Sunday.

During the summer the Warden gives a series of Christian lectures on Sunday mornings in Southwark Park. There the working-men of South London are to be found in the hours of church service; and so ordinary morning services were shortened, and a party went down to the Park, where the public-meeting ground was shared with the Social Democrats. Addresses were given on "The Christianity of Christ"; "The Truth and Error of Other-Worldliness"; "Salvation—What it Means"; "The Saviour"; "The Way of Salvation"; "The Work of Churches"; "Christ, and the Pleasures, Powers, and Pursuits of Ordinary Human Life"; "The Love of God, and the Struggle for Existence." The



teaching was simple and popular, sympathetic and positive, but not controversial. Every week hundreds of dock-labourers and others gathered round, listened most attentively, and expressed their hearty interest in what was said. All the year round great attention is paid to outdoor mission work. There

is but little, if any, opposition to the Gospel, and the South London experience shows that no similar association need be afraid of religious work. The formation of a Christian Council has helped work a great deal.



Residents.

Residents come for a year, or shorter periods, and take part in the work. These gentlemen are provided with accommodation at the Settlement, the tariff of charges for which is: For two rooms, use of common rooms, and board, 28s. weekly; for one combination room, with ditto and board, 24s. weekly; for bedroom with ditto and board, 21s. weekly. Besides the residents there is a large staff of helpers, most of whom come for a day or evening each week. There are now about fifty workers, without counting old inhabitants of the neighbourhood, who in many of the enterprises are giving their hearty support.

The Women's Settlement is also progressing very favourably, and at the date of the publication of their last report the Resident's house was fully occupied.

All the agencies of a vigorous evangelical work in the midst of a poor population are being actively carried on.

Boys' Brigade. Three companies of the Boys' Brigade meet in the neighbourhood—one at Silver Street, one at Southwark School, and one at the Settlement. Besides military drill, they learn swimming, football, and cricket. In the summer a seaside camp is a great attraction. The boys are watched in business and sickness. Every Tuesday evening a training-class for officers is held.

The Southwark Pupil Teachers' Association also meets here, and every Saturday fifty of them are taught gymnastics, and then entertained to tea. A factory-girls' club, a local Parliament, a private labour agency, and a theological guild, also do good work.

A New Use
for "Used
up Public-
Houses."

For a long while a number of men employed in water-side labour had been looking out for means to open a social club, without the temptations of intoxicating drinks. Mr. Lidgott undertook to assist

them. An unexpected event gave a most favourable opportunity. Some house property in West Lane, close by the river-side and near the Settlement, was bought up by a City firm. The "George" public house was included in it, and one of the partners having a conscientious objection to maintaining the license, sacrificed it and paid compensation for the diminished value of the estate. It was agreed to take this house and open it without intoxicating drinks, gambling, Sunday games, or politics. The club was, moreover, to be thrown open to women. It was opened accordingly last May by Mr. William Allen, M.P., as "the St. George's Social Club." Its affiliation is the inauguration of a policy which has made Oxford House powerful in the East End. Of this policy we shall speak in another article. If it means nothing else, it carries with it constant supervision and visitation from University men, who lecture, play, or help in every possible way. In some such way something may be done towards reducing the attractions of the terrible drinking clubs of London.

The influence of the family for good is immense in such a district as the South-East of London. There is evidently a desire to regard Mr. Lidgett as father, and his wife as mother. Culture and refinement are added to the work by the presence of a practical lady; and without it any head is apt to become lost in his pursuit of routine work, oblivious of the fact that there are other spheres of life urgently demanding his attention. More, too, may be accomplished if the affairs of the small republic are jointly managed. An opportunity was given me of seeing, unknown to him, Mr. Lidgett's work, and I can truly say he toils nearer eighteen than eight hours per diem. Not often have I seen such devotion to duty.

BROWNING HALL.

Browning Hall is established as the headquarters of a civic brotherhood. Its founders believe that the great danger in London to-day is the residential separation of the classes. With the aggregation of numbers, the tendency is to the segregation of classes. The rich live together, and the poor herd rather than live by themselves. In one direction you have culture, wealth, refinement, and in another squalor, ignorance, rudeness. This creates a danger; and what is the remedy?

Mr. Herbert Stead urges that Christians should take steps to counteract this separative tendency by choosing for their residence, when they can do so, those places where they can be of most use to their neighbours. This would be nothing less than the return of the rich to dwell among the poor.

Walworth was a few years ago peopled by those who were well to do. It was a habitable suburb with green fields within easy reach. Then the York Street Chapel which is now the main building of the Settlement was filled with a congregation

which could vie with many another in the amounts it raised for charity. Years passed by, and facilities for travelling increased, numbers migrated to the suburbs where rents were sometimes cheaper and the air purer, and in process of time there was left behind a poverty-stricken population. So sad had the state of things become that the churches began to be alarmed at the heathendom of the people. Moralists pointed to South London with dismay. All were asking what was to be done?

Only by constant labour, weekday as well as Sunday, was there any hope of overcoming the rank indifference of the people. Therefore, says the head of the Robert Browning Hall, "We shall induce as many Christian people as we can, families or individuals, to come and live with us down in Walworth amongst the poor, and to realise as far as possible the idea of true neighbourliness."

It is a mistake to suppose that the slums are



always unhealthy. The Rector of Spitalfields, for example, has for years lived in a district unequalled for misery and squalor with his family, and he asserts that excellent health can be enjoyed.

The Brotherhood of Labour. Browning Hall is local and not academic. Its staff comprises men who live in the district; and who understand from experience what it is to work for weekly wages. The secretary is a local newsagent. The subwardens are practical men in every way. One was a ship's labourer at Jarrow, before he educated himself sufficiently to take his B.A. degree; and even as he studied for it, he laboured as a stocking maker at Leicester. The other was a gas-stove maker of the district. These are the men who with Mr. Herbert Stead are to pioneer the Settlement through its early years. Hitherto, institutions of this class have been under the guidance of graduates—now men who have risen from the ranks and are themselves members of the Brotherhood of Local Labour are chosen to aid in the formation and development of the new house.

The Nature of the Work. There are many rooms at the Settlement. One of them is used for an infants' school, which proves of great value to those parents who are obliged to go out and labour all day long. In others classes and

lectures are arranged for instruction in the opportunities and duties of citizenship. The student will find also quiet rooms in which he can pursue his studies—another new feature—and a great boon to those who live in crowded places. Two lawyers already give their services to any applicant; and this branch of the work is very popular. A crèche; cookery classes; an old clothes' store; a people's drawing room and At Home once a week; Saturday concerts; a gymnasium; a girls' club,—these are features. There are also branches of what is called the Loyal Legion, in addition to the more familiar rambling, swimming, cycling, and cricket clubs; and there are "happy evenings" for children.

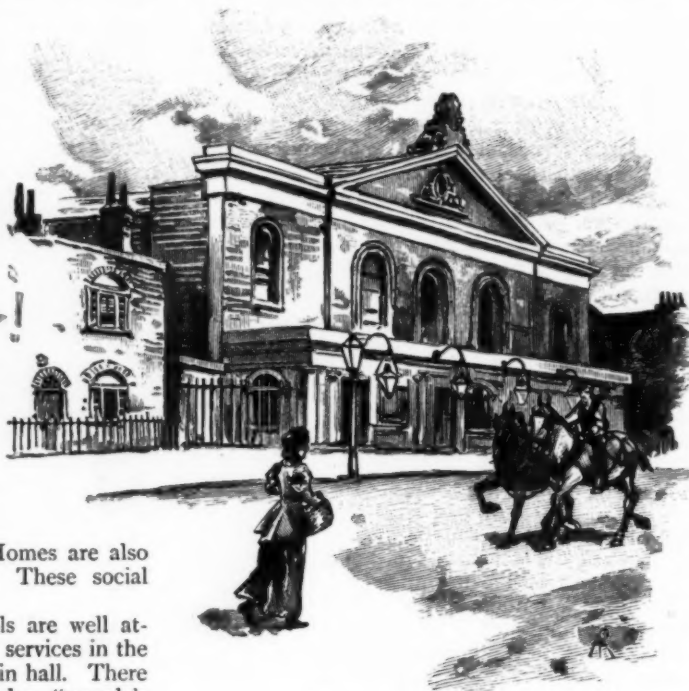
The At Home at Clayton Hall. Mrs. Stead has a unique Tuesday afternoon meeting in the Clayton Hall. It is transformed into a drawing-room, with pictures, mirrors, tapestry, easy chairs, lounges, forms of transformation the expediency of which, perhaps, some may question. Invitations are sent out to the people, who bring their babies with them. While the mothers work the tiny mites run about, and toys in abundance are provided for them to play with, and ladies and friends amuse and join in the fun. Musical At Homes are also held one evening in the week. These social functions are largely attended.

Other Agencies. The Sunday Schools are well attended, and so are the services in the old chapel, now the main hall. There is a "P.S.A." in the afternoon, and a "people's service" in the evening.

The late hours common on Sunday mornings are one of the hindrances to public worship, and sadly enough it must be confessed that the week's labour is not over till long after Sunday has dawned. The general trading on that day is another impediment, the people pleading that it would be impossible to get the rent if they rested on Sunday. To most of them here it is the best day for business, the takings of the itinerating profession are larger than at any other time. Further, if the husband has no work on that day, he is tired out; and having had no meals at home all the week, looks forward to the dinner on Sunday with his wife and family, and the mother must stay at home to prepare it. Until shorter hours of work prevail there is little hope of getting these people to a place of worship on the Sunday morning. The question arises as to whether services at some other hour will bring the people out on Sunday. The answer is Yes, though the process may take some time. At Browning Hall the Warden has a Bible gathering on Sunday morning, but if the

chapel is empty then, it is filled in the afternoon and evening.

The platform at York Road is an open one, but only to the best of all denominations. Each man and woman who talks is a specialist, and has established a reputation in his or her own particular line. Thus the most attractive gospel preachers—clerical and lay—as well as singers and scientists and lanternists—are all to be seen and heard.



BROWNING HALL, WALWORTH.

The people, it is urged, must have of the best. If for a small sum they can go to a popular concert, or see a first-rate play, they are not likely to be satisfied by inferior preachers in a place of worship. If once the spiritual apprehension is enlightened another rule will obtain.

A Browning sisterhood is being organised. It is not proposed that they should wear a distinctive uniform, but they will live and labour among the people for love's sake.

A Settlement Garden.

At the back of the main building is a piece of ground, formerly a graveyard. It is interesting to note that buried here is the captain of the ship which took out the first party of missionaries sent by the L.M.S. This space it is proposed to make into a garden, where people can come and rest. It is to be laid out by the unemployed. To crowds of people it will be a great boon. Very few of these Settlements have gardens. It will be possible to utilise this open-air space in many ways.

T. C. COLLINGS.

Varieties.

The Barber Surgeons' Holbein.

Holbein's last picture, that of the Barber Surgeons, was his largest. It is, as Pepys called it, "not a pleasant, though a good picture," and is painted on vertical oak boards, being 5 ft. 11 in. high by 10 ft. 2 in. long. It seems to have been begun about 1541, and finished after Holbein's death in 1543, and it has evidently been altered since its first delivery. The tablet, for instance, was not always in the background, for the old engraving in the College of Surgeons has a window in its place, showing the old tower of St. Bride's, and thus indicating Bridewell as the site of the ceremony. The outermost figure to the left, too, is omitted, and, according to some critics, the back row of heads are all post-Holbeinic. The names over the heads appear to have been added in Charles I's time, and it is significant that only two portraits in the back row are so distinguished.

The picture has occasionally been lent out from the hall. James I had it out, and so had Charles I, and many will remember seeing it at the Tudor Exhibition a few years ago. It was then catalogued under its customary title, "Henry VIII granting the Charter to the Barber Surgeons' Company," but this is evidently an error. The charter was granted in 1512, when Henry was only twenty-one years old, and when Vicary, Ayleff, Harman, and others whose portraits it contains were not members of the company. There can be no question about the names, for, as we have remarked, they are on the picture; and there can be no doubt as to the dates, for, of course, all the members are entered in order on the company's roll. The painting was really done in commemoration of the passing, on July 25, 1540, of the Act of Parliament officially known as 32 Henry VIII, cap. 42, by which the Guild of Surgeons was incorporated with the Barbers' Company. At that date the king was of the age shown, and the persons named were of the ages shown. What the document held by the king may be is as much a mystery as his Majesty's enormous size compared to that of the figures in the foreground, and the peculiar way in which he is glaring out of the picture, apparently unconscious of the presence of his medical friends.

The union of the Surgeons and the Barbers, which lasted until June 1745, when it was dissolved by another Act of Parliament, was well worthy of commemoration. For years the two guilds had been more or less at variance, although occasional working agreements had been entered into which smoothed the way for the coalition that at the time seemed the only satisfactory plan. A thousand years ago the healing art, such as it was, was entirely in the hands of the ecclesiastics and the Jews. The clergy had the bulk of the practice; it seemed to be only natural that they should have the cure of the bodies as well as that of the souls. But about 1150 there arose an anti-something agitation—as such agitations nowadays arise—which required the clergy to abstain from surgery, "as surgery required the shedding of blood." In 1163 this matter came up at the Council of Tours, and the agitators had their way.

Then a curious thing happened. The clergy being tonsured could not do without the barbers to keep their heads shaved, and the knights of the razor were just the sort of men likely to be of use in surgical operations. In fact, the monk's barber was generally his assistant in such matters, and when the Council's decree was passed the monk kept to medicine and handed over surgery to his assistant. Hence the barber surgeons. It did not take long, however, for the younger men to discover that there was no necessary connection between hair-cutting and surgery, and, in fact, that the association was rather absurd; so that in a very few years

the more educated and scientific men dropped the shaving and practised as surgeons only. The barber surgeons in time formed themselves into a guild—it was in 1308 that Richard le Barber was sworn in at Guildhall as first master of the Barber Company; the surgeons also came to have their guild, and the sort of feeling that existed between the two guilds is conceivable.

This Act of 1540 was a sort of eirenicon. The property of both guilds was thrown together. The company was to consist of surgeons and barbers, "no surgeon to practise barbery; no barber to practise surgery, except in so far as drawing teeth"; and to encourage the study of anatomy the king did graciously assign the company four malefactors per annum for dissecting purposes.

The men whose portraits appear in the picture are not nonentities. The first figure to the king's right, with his hands in his gown, is Dr. John Chambre, king's physician, Fellow and Warden of Merton, and happy in his multitudinous appointments both clerical and lay. Behind him is the Doctor Butts of Shakespeare's "Henry VIII"—the Sir William Butts who was the king's and Princess Mary's physician, and whose wife is known by Holbein's splendid portrait of her. Behind Butts is Alsop, the king's apothecary. To the king's left the first figure is Thomas Vicary, surgeon to Bartholomew's Hospital, serjeant-surgeon to the king, and author of "The Anatomie of the Bodie of Man." Next to him is Sir John Ayleff, an exceptionally good portrait. Then come in the undernamed: Nicholas Simpson, Edmund Harman (one of the witnesses to the king's will), James Monforde (who gave the company the silver hammer still used by the Master in presiding at the courts), John Pen (another fine portrait), Nicholas Alcocke, and Richard Ferris (also serjeant-surgeon to the king). In the back row the only names given are those of Christopher Salmond and William Tilley.

The British Association Meeting for 1895.—Ipswich is the place chosen for the meeting this year. On September 11 it is expected that Lord Salisbury, the president of the Oxford Meeting of last year, will give a brief address, and introduce his successor, Captain Sir Douglas Galton, K.C.B., F.R.S. Among the vice-presidents are the Marquis of Bristol, Lord-Lieutenant of the County of Suffolk, the Mayor of Ipswich, and the High Steward of the Borough, and the most eminent men of science, such as Lord Rayleigh and Sir George Stokes, Bart. In the sections, Professor Flinders Petrie is to preside at the Anthropological Section, H, and Mr. Thistleton Dyer at Section K, Botany; for the old numbers of the sections are all changed now. At the two popular evening meetings, lectures will be given by Professor Sylvanus Thompson and Professor Frankland on the work of Pasteur and its developments. There will be various excursions, always a pleasant feature of the meeting.

This is the second visit of the Association to Ipswich. The first was as long ago as 1851, when Mr. Airy was president. It was not a largely attended meeting, but will always be regarded as one of the most successful. Professor Airy in his address referred to the zealous and generous support of Prince Albert to science as well as art, and to the desire shown by him to see all civilised nations united by ties of commerce, hospitality, and mutual esteem. The Exhibition of 1851 was the great event of the year. Mr. Airy read a paper on the total eclipse of July 28, 1851. Amongst the younger members of the Association at Ipswich was Dr. Hugh Cleghorn, afterwards Inspector-General of the Woods and Forest Department of India. He only retired a few years since, and lived at his paternal estate of

Stravithie, near St. Andrews, where he passed away at a ripe old age this summer. Richard Owen was conspicuous at Ipswich, and one of the best reports was that of Baden Powell, Savilian Professor at Oxford, on "Luminous Meteors." Mr. Ransome, senior, head of the great agricultural implement factory, had been at Edinburgh to plead for the Association coming to Ipswich. He was hailed by Edward Forbes and entertained by the "Red Lions," which he so much enjoyed that he invited specially all the Red Lions to an entertainment, which was one of the social events long remembered in connection with Ipswich. May the meeting of 1895 be as prosperous and successful, and more numerous attended than that of 1851!

International Geographical Congress.—The Geographical Congress of this year, in London, was a great success, and the details of the meeting have been fully recorded. Very happy were the words spoken by Chief Justice Daly, President of the Geographical Society of New York, in his reply on behalf of the foreign delegates from many lands. "The world," he said, "is indebted to a prince—Prince Henry of Portugal, more familiarly known as Henry the Navigator—for the institution of that great era and movement in the fifteenth century which began by the finding by his vessels of the way to the Indies by the Cape of Good Hope. It was his influence that stimulated the spirit of geographical inquiry which in the same era brought about the discovery of the great continent of America and the circumnavigation of the world by the discovery of the passage through the Straits of Magellan. And now, after 400 years have gone by, and we are assembled here in this city of London for the same object to which he devoted his life and his fortune—the advancement of geographical knowledge—it is a pleasant spectacle, which recalls the past and which gives promise for the future, that this meeting is presided over by a Royal prince and the grandson of a Sovereign whose Empire is more widely distributed over the surface of the earth than any empire that has preceded it, or, in the language of an American orator, 'whose morning drum-beat, following the sun and keeping company with the hours, encircles the earth daily with a martial ring.' This congress has to geographers an especial interest from the central position of the city of London in relation to the land masses of the globe, for it is nearer to that centre than any other city of the world." It was also mentioned at this meeting that Humboldt, when yet a young and unknown man, had come to London to see Major Rennell, the chief English geographer of his time. How different would his reception have been had he come as the illustrious Baron von Humboldt, the author of "Kosmos," and the greatest traveller and naturalist of the world!

Sir J. Russell Reynolds on the Moral Aspect of the Medical Profession.—The British Medical Association, like that for the Advancement of Science, holds its annual meeting at different places throughout the kingdom. The last London meeting was as long ago as 1873, when Sir William Fergusson, the eminent surgeon, presided. The president this year, Sir J. Russell Reynolds, in his opening address, spoke much of the wonderful progress of surgical art in the last twenty-five years. Sir W. Fergusson, with all his dauntless courage, shrank from performing operations which now were commonly performed by hospital clerks and young dressers. In medicine there had not been such striking progress, but in the uses of remedies, and in all that pertained to sanitary art, the benefits of medical science had proved effectual in lessening the rates of mortality, and in lengthening the average duration of human life.

The conclusion of the address was in a strain of dignified and earnest appeal to the medical profession to show reverence to religious feeling and to advocate the social and moral proprieties of family life, of which there was in our times too much disregard, both in literature and in art. Physicians and surgeons should be opposed to the profanity and impropriety now frequently current in books, plays, and conversation. The medical profession has often opportunities of counteracting this growing tendency of social life. "I am sure," he said, "that in giving help to suffering and sorrowing man we shall never forget to refer to that Higher Power, the source of revelation, and of every good and hope, and realise the importance of this factor in the lives of our patients

and of our own. We should so guide its operations as to help it to chasten, subdue, control, and comfort those to whom it is the minister that they feel to be sent from God, to help them in their passage through this region of passing shadows to that of realities which are abiding things."

The president of the council, Dr. Ward Cousins, in moving the adoption of the Report, said that when they last met in London in 1873 they numbered only 1,500, while now their membership exceeded 16,000. The "Journal" of the association was also in a most flourishing condition, and its pages effected great good, both as regarded the education of the medical profession and the benefit of the people, especially the poorer classes.

Cricketers of Bygone Times.—On the occasion of the recent death of the aged Earl of Verulam, the fact was recalled, by a correspondent of the "Times," that his lordship passed away on the seventieth anniversary of the first cricket match between Harrow and Winchester Schools. Christopher Wordsworth, afterwards Bishop of Lincoln, was captain of Winchester in that match, in July 1825, and Charles Wordsworth, the late Bishop of St. Andrews, was captain of Harrow, to which the Earl of Verulam then belonged. Edward Manning (Cardinal) was in the Winchester eleven, and was caught by the future Bishop of Lincoln in the second innings. Manning had been a pupil of Charles Wordsworth at Oxford, and another pupil was William Ewart Gladstone, now the sole survivor of those days. These facts are worthy of note to the historians of the noble English game. Winchester and Harrow have not had a contest for many years.

Hubert Herkomer on Effective Painting.—In a recent lecture on painting by Mr. Hubert Herkomer, while there was proper praise of careful and elaborate art, there was also exaggerated representation of the need of technical study. For instance, he said, "I defy any painter to draw a building without any knowledge of perspective, or to draw a hand without any knowledge of the bones that are within." The statement which we print in italics is extravagant. Let there be teaching of anatomy, as well as of perspective; but genius has often worked marvellous effects without this detailed knowledge. However, let us give the words of the conscientious artist in illustrating his plea for minutest study and elaborate carefulness: "When a Velasquez summed up in after-life with a few well-understood touches, and was able to give us those incomparable masterpieces, it was because he had begun so very elaborately. In his picture, belonging to the Duke of Wellington, 'The Water Carriers,' even the drops of the water running down the pot are finished to the utmost. And so in Rembrandt's so-called 'Night-watch,' when looked at quite near, you can well make out the pattern of the lace on the yellow man in the centre, and the drum to the right, which is still preserved in the Amsterdam Museum, is rendered so minutely that not a nail fails." Could any *pro-Raphaelist* desire more than this? The large picture in the Academy exhibition of this year, "The Bürgermeister of Landsberg, Bavaria, with his Town Council," is said to have been achieved with the help of a photograph, afterwards "painted large."

Fifty Miles Cycling Record.—Mr. A. Chase, of the North Road Club, at the close of this summer established a new record for fifty miles, which he covered in two hours five seconds, beating the previous best time by over a minute. For a very large class the performance of wonderful feats has attraction, and the "records" of all kinds are worthy of being noted; but we repeat our warning to the young who are ambitious of excelling in athletics that excessive muscular exertion may be injurious to health, if not shortening life.

The Alpine Afterglow.—An ingenious explanation of the lovely phenomenon known as the Alpine afterglow (seen in its perfection at the Yungfrau and other mountain heights of the Bernese Oberland) was given by M. Cornu in his lecture on "The Atmosphere" at the Royal Institution. The valleys between the peaks are filled with hot air under the influence of the sun. The path of the rays of light reflected from the surface of the heated air would be convex as regarded from the earth. After sunset the hot air ascends and cool air takes its place, thus producing a hot layer above the cooler

one. The light from the sun would now be reflected into a concave ray, bending down and illuminating the mountain tops, though the sun is in fact below the horizon. Hence the beautiful appearance of the Alpine afterglow. This may be only a theory, but M. Cornu, in his lecture, delivered in French, expounded many other phenomena of the upper atmospheric regions. The subject was a most important one, as regards health as well as meteorology; the currents of air moving at great height from the equatorial regions to our northern climates carrying possibly germs of disease and disastrous storms, as well as visions of beauty and healthful streams of air.

American Common Schools.—In America each State in the Union has its own laws and usages in regard to the common schools. Strong endeavours are made in some of the States to obtain separate support from the rates, but hitherto without success, except indirectly in New York City and other places, where the immigrants, whether Irish or German, are in large numbers. A league of native-born Americans has been formed for maintaining the old usage, requiring all help for common schools (analogous to our Board schools and National schools) to be alone supported out of the rates. In the New England States, especially in Massachusetts, the common school system is maintained strictly, and these Northern States are the most thorough in their educational advantages.

In the "Leisure Hour" for September 1894 a memoir is given of a wealthy and beneficent lady, the late Mrs. Hemenway, who did useful work in improving the training in the girls' schools of Boston. The teaching had been too much confined to intellectual subjects, and the effect was seen in the gradual decline of the physical health and general usefulness of the middle classes. Mrs. Hemenway was solely instrumental in introducing the teaching of cooking and domestic sewing into the general curriculum of the public schools of Boston. She fitted up a house with all the best appliances—a kitchen garden was attached to it—and maintained a staff of trained lecturers and assistants to teach the nature, uses, and cooking of food products to the girls of Boston, with such success that the Committee of Public Education took over her cooking school as they had her sewing classes, and instruction in both these industrial arts now forms part of the general course of education in the public schools of the city.

The same result, with even more extended consequences, followed from Mrs. Hemenway's later recognition of the need and value of physical training. She founded, fully equipped, and maintained the "Normal School of Gymnastics" in Boston, in order to train up a staff of teachers in the Ling system of Swedish gymnastics. This course was also subsequently introduced into the public schools, and the graduates of the "Normal School of Gymnastics" leave that institution fully instructed in the system, and able to direct similar courses in other cities and States of America. For the continued support of this work provision was made in her will.

New Zealand Curiosities.—The following notes come from Mr. J. H. Thompson, New Zealand:

"I see, by my volume of 'The Leisure Hour' for 1894, that you considered my letter on the ichneumon fly or mason bee worth inserting. Perhaps you may think some further notes worth publishing.

"It seems very strange to many of us out here that so little seems to be known at home about the 'British Isles of the South' by the general public. The reading people often make some strange blunders about New Zealand. A friend of mine in one of his letters to me (who has a relation far north in Queensland) asked me if I knew his friend, as if he was close to me. He is separated from me by a sea voyage of over 1,000 miles!

"Is it true that in New Zealand oysters grow on trees? Many will say this is a traveller's story, but it is a simple fact. In many parts of New Zealand there are large salt-water creeks that run a good way inland. At high water they are full of sea-water, and when the tide is out there is a bed of deep black mud, and growing a good way out from the sides in the mud is a thick growth of a stunted sort of a tree or shrub, called here 'mangrove.' Many of their stems are covered with rock oysters. I saw them in the creeks

round the coast of Waihoke, an island in Auckland Harbour, about fifteen miles from Auckland.

"The Waikato River flows from the land of active volcanoes, and large blocks of pumice stone are continually floating down. In some places on the banks I have seen them squared and used as bricks for building chimneys, and it stands the fire better than many of our clay bricks.

"In the hot-spring district there are boiling wells that the natives use to cook their food with, and they do the work as well as a fire. I have heard of a party of Europeans cooking their Christmas dinner in one.

"The hottera, a decided caterpillar or worm, is found growing at the root of the rata tree, with a plant growing out of its head. This most peculiar and extraordinary insect travels up both the rata and kurii trees. Entering in at the top, it cuts its way, perforating the trunk of the tree, until it reaches the root; it then comes out of the root and dies or becomes dormant. The plant propagates out of the head; the body remains perfect and entire, of a harder substance than when alive. From this insect the natives make a colouring-matter for tattooing. I myself have never seen the above, but I have spoken to several old residents out here who have, and I see by an old volume of the 'Boy's Own Paper' that a specimen of it was sent to the National Institute of Salem, Mass., U.S.

"J. H. THOMPSON.

"*Harapepe, Waikato, New Zealand.*"

Government Purchases at Great Sales of Literary or Artistic Collections.—The number of famous libraries, picture collections, and other treasures which have been disposed of at sales and auction rooms during the present year have been greatly above the average. Notices have appeared in the newspapers and other records of the details of the sales, with the prices obtained for objects of special value. The only point of general interest in the story of these sales is the more than usual amount obtained by the energy of those who have charge of the national museums and libraries. For instance, the Treasury, on the recommendation of the trustees of the British Museum, agreed to the purchase of the celebrated Malcolm collection of drawings and engravings by the early masters, which had been deposited for some years in the department of prints and drawings by the late Mr. John Malcolm, of Poltalloch. The present owner, Colonel J. Wingfield Malcolm, offered to sell the collection to the nation for £25,000, the estimated value being £40,000 at the time of their being deposited at the museum. Another instance of Government interposition was witnessed at the dispersion of a famous set of Nelson relics, a grant from the Treasury being voted to secure all the medals and decorations belonging to Horatio Nelson, so that they might be added to the collections of relics at Greenwich Hospital. These sums will be included in the "Supplementary Estimates" for this year. For the purchase of pictures, books, and objects of art, to enrich our National Galleries, there are certain amounts in the regular estimates of each year.

Telegraphic Messages.—There are two or three points in the recent controversy between the Postmaster-General and the daily newspaper proprietors which are of interest outside the newspaper world. The Postmaster-General attributes a large part of the deficiency in the accounts of the Telegraph Department to the cheap rates at which the press has the use of the Government wires. These rates date from the time Government took over the telegraph. During the daytime press messages are sent at the rate of 75 words for a shilling. After six o'clock in the evening the rate is 100 words for a shilling. When messages are duplicated to half a dozen newspaper offices, the duplicates are charged according to a greatly reduced scale. A correspondent at Leeds, who is sending an account of a meeting to all the London morning papers, pays only twopence or threepence for each additional message. The message is written on manifold paper in London, and the duplicates cost the Government little more than the cost of the paper on which they are written, and the time of the telegraph messenger who carries them to the newspaper offices. The great bulk of the press messages over the public wires are sent out from the offices of the Press Association and the other news agencies. These agencies send nearly all the Parliamentary news which is not transmitted over the private wires of the newspapers, and so

expeditiously and cheaply is this work now undertaken, that the Parliamentary reports appearing in many of the provincial morning papers cost little more than seventy or eighty pounds a year. The provincial papers, whose head offices are connected with Fleet Street by private wires, pay £500 a year for each wire. Out of this sum the Post Office pays the wages of three or four telegraph clerks, and the newspaper has the exclusive use of the wire from six o'clock in the evening to six o'clock next morning. Little remains to the Government after it has paid the wages of the telegraph clerks and the cost of maintaining the wire. On the other hand, if the wires were not in use in thus connecting Fleet Street with the provincial cities, the chances are that they would be idle and earning nothing at all. There can be no doubt the press has now the use of the wires on very easy terms. According to Mr. Arnold Morley's figures, the arrangement results in a heavy loss to the national exchequer. The extent of the loss is a matter of dispute between the Postmaster-General and the newspapers. But whatever the amount of the loss may be, and while remembering that newspapers after all are money-making undertakings, it can hardly be called a dead loss to the nation; for the educational value of the full Parliamentary reports is a matter which should be taken into account. If, however, there is a rearrangement of terms between the Post Office and the newspapers, care should be taken to exclude racing and betting intelligence from the schedules of news matter transmitted at cheap rates. There is no educational value in news of this kind, and it is not for the public good that the Telegraph Department should encourage and facilitate its dissemination. No one would seriously suffer if the Department abandoned altogether its present practice of sending down a special staff of telegraphists to every race-meeting.

The Linnean Society Medal for 1895.—At the last annual meeting of the Linnean Society, in the new rooms at Burlington House, the President, Mr. C. B. Clarke, F.R.S., announced the bestowal of the gold medal, founded in 1888, the centenary of the Society, on Dr. Ferdinand Cohn, Professor of Botany in the University of Breslau. The medal is awarded in alternate years for distinction in Zoology and Botany. The occasion was an interesting one, especially to those who remember the meetings of the Linnean in their old house in Soho Square.

Foreign Postage-Stamps.—At the sale of Colonel Leckie's collection this summer by Messrs. Puttick & Simpson, the following were among the sales of rare and costly foreign stamps: Tuscany, 60 crazie red, £8; Bahamas, 1d., £2 18s.; Canada, 6d. gray lilac, unused, £9; ditto, 7½d. green, unused, £6 6s.; Cape of Good Hope, rare wood block error, 4d. red, £32; Ceylon, 6d. on blue paper, £5 5s.; Mauritius, 2d. blue, £6; New Brunswick, 6d. yellow, unused, £20; ditto, 1s. mauve, unused, £36; the same, used, £13; Newfoundland, 6d. scarlet, £7 10s.; ditto, 1s. carmine, £16; first series of Portuguese Indies, £11 10s.; Sierra Leone, 6d. violet, £8. As in several instances the prices were largely in advance of any yet paid at auction for similar stamps, our readers who are stamp collectors may like to preserve this record for reference.

M. Burdeau, President of the French Chamber of Deputies.—The death of M. Burdeau has removed one of the most able, energetic, and honest statesmen of the French Republic. The son of a silk weaver, and left in early life to be brought up by his widowed mother, he rose slowly and gradually till chosen by his compatriots to be President of the Chamber. Every step upwards was achieved by hard labour and indomitable determination. When sent as a delegate to the Berlin Labour Conference he told the story of his own life during a debate about limiting the hours of labour. His speech greatly astonished the representatives of Socialism, and especially his own French colleague, M. Victor Delahaye. His arguments for freedom of action were drawn from his own experience. His mother apprenticed him to a blacksmith when he was ten years of age, and she paid a learned but poor professor to teach her boy Latin and mathematics, to prepare him to compete for a scholarship at the Lycée of the town. There he distinguished himself, and he won another scholarship at the Parisian School of Sainte-Barbe, and came out first in 1870 at the Concours

Général for the Louis le Grand Prize for classics and philosophy. This entitled him to go through the Normal School for Higher Studies at the cost of the State. He was opposed to all legal obstructions to the free labour of men who desired to rise in the world. For children there might be enacted legal limits to work, but never to free men, in any class of life and any occupation, who were striving to rise above the low level of existence, either from personal ambition or from desire to assist others less capable of long hours of labour.

The Watson Medal.—The trustees of the Watson Fund have awarded the medal this year to Dr. Seth Chandler, of Cambridge, Mass., U.S., for his researches on variable stars, his discoveries on the period of variation of terrestrial latitudes, and the laws of that variation. His researches were published in a series of papers in the American "Astronomical Journal," 1891-94.

Holland and "Shopcraft" in 1672.—When war was suddenly, without notice, declared by Louis XIV, the following is given by Lord Wolseley as the condition of Holland: "Their sailors were as good as those of England, but the generation of landmen were more fitted to handle the yard-measure than to wield the pike. Engrossed in money-making, they had forgotten the art of war on land. A long peace had lulled them to sleep, and they had false visions of a strength and security which they did not possess. They constructed dykes to keep out the sea, but neglected the fortifications which should keep out the enemy. Greed of wealth was slowly killing that public spirit upon which alone a healthy naval and military discipline can ever be maintained. 'Oh Shopcraft! how you do effeminate the minds of men,' said a poet who wrote a comedy, 'The Siege of Money,' in 1661."

Astronomical Notes for September.—The sun rises at Greenwich on the first day at 5 h. 14 m. in the morning, and sets at 6 h. 46 m. in the evening; on the 15th he rises at 5 h. 36 m., and sets at 6 h. 14 m. He passes the equinoctial point at the beginning of the sign Libra about 7 o'clock on the morning of the 23rd, so that that day is the autumnal equinox, on which the days and nights are equal to each other (or rather would be were it not that refraction lengthens by a few minutes the time during which the sun is above the horizon) in every part of the earth; but mean noon being then nearly eight minutes after apparent noon, so that the sun is on the meridian at 11 h. 52 m. by our clocks, he will rise on the 23rd at 6 h. 11 m. before mean noon (5 h. 49 m. clock time), and set at 5 h. 55 m. after it. The moon will be Full at 5 h. 55 m. on the morning of the 4th; enter her Last Quarter at 4 h. 51 m. on that of the 12th; be New at 8 h. 55 m. on the evening of the 18th; and enter her First Quarter at 6 h. 23 m. on that of the 25th. She will be in apogee, or farthest from the earth, at 10 o'clock on the evening of the 3rd, and in perigee, or nearest us, at 7 o'clock on the morning of the 18th. The planet Mercury will be visible after sunset about the end of the month, but only for a very short time, on account of his southern declination, which continues to increase. Venus will cease to be visible as an evening star early in the month. On the morning of the 19th she will be in inferior conjunction with the sun (passing nearly 5° to the south of him), and about the end of the month will reappear as a morning star for a brief interval before sunrise. Mars is quite invisible throughout September. Jupiter, however, may be seen in the early morning, situated in the constellation Cancer. By the end of the month he will rise at midnight and afterwards earlier. Saturn is still visible in the south-western part of the sky in the early part of the evening, but will cease to be so in the course of the present month.

A total eclipse of the moon will take place on the morning of the 4th; but at Greenwich the total phase will not commence until 5 h. 7 m., and eleven minutes afterwards the moon will set, so that only the first part of the phenomenon will be visible in western Europe. It will be best seen in America. A partial eclipse of the sun will take place on the 18th, but it will be visible only in eastern Australia and in the parts of the Antarctic Ocean to the south and east of it. At Sydney the sun will rise with about half his diameter under eclipse.

W. T. LYNN.

